

THE MILLING WORLD

AND

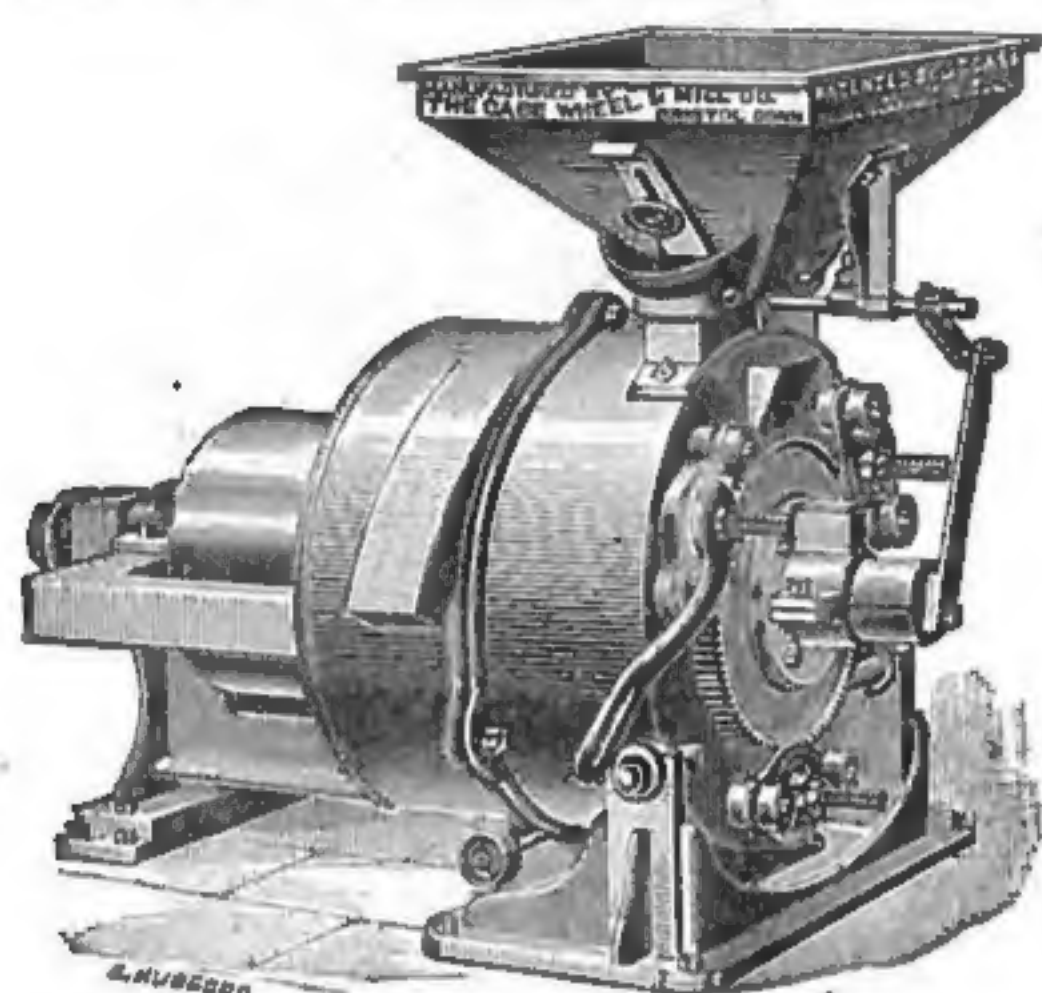
CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY MORNING.

VOL. XXI. No. 20.

BUFFALO, N. Y., JANUARY 13, 1890.

\$1.50 PER YEAR.



VICTORY OVER ALL OTHERS. SINGLE & DOUBLE VERTICAL GRINDING MILLS. (J. T. CASE'S PATENT.)

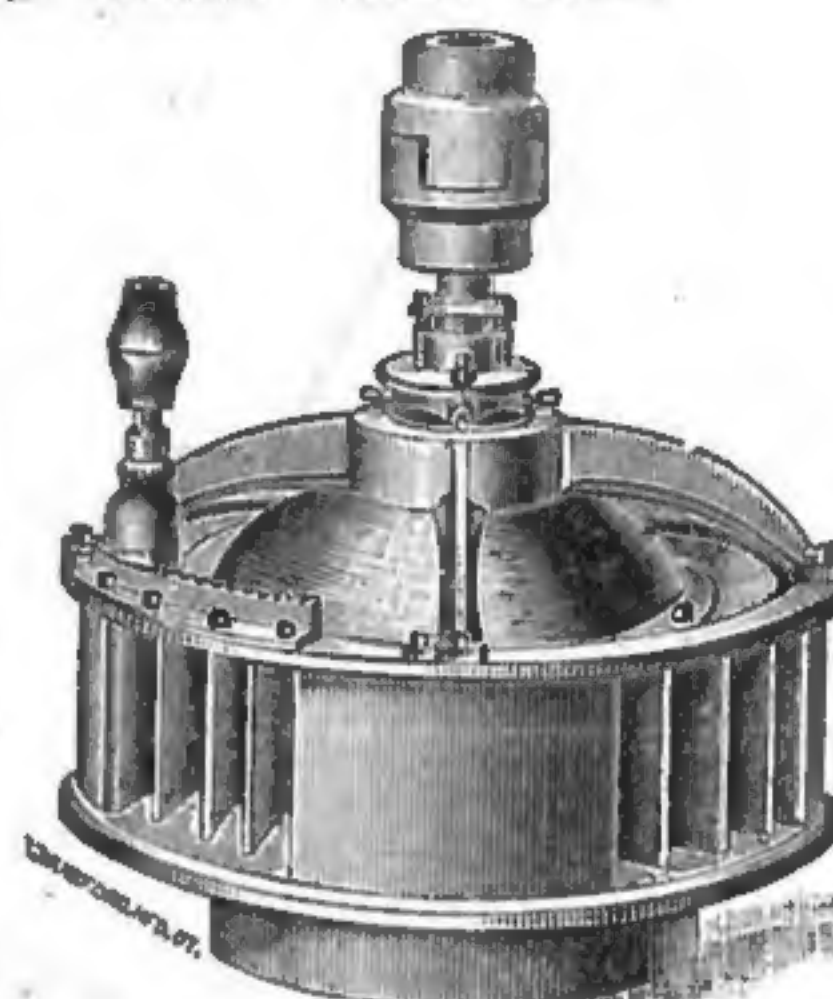
FACTS ARE MIGHTIER THAN ASSERTIONS. READ WHAT THEY SAY:

"Our 20-inch mill made by the Case Wheel & Mill Co. is in every respect satisfactory, easy to handle, and best results obtained of any mill in the country, with same quantity coal and power."—A. S. RUSSELL & Co., Meriden, Conn.
"Superior to any mill in use."—Geo. Weston, Bristol, Conn.
"The best satisfaction in quantity and quality."—CHILD'S ELEVATOR, Manchester, Ct.
"We take pleasure in recommending it."—GARLAND, LINCOLN & Co., Worcester, Mass.

SEND FOR CATALOGUE—ILLUSTRATED AND DESCRIPTIVE.

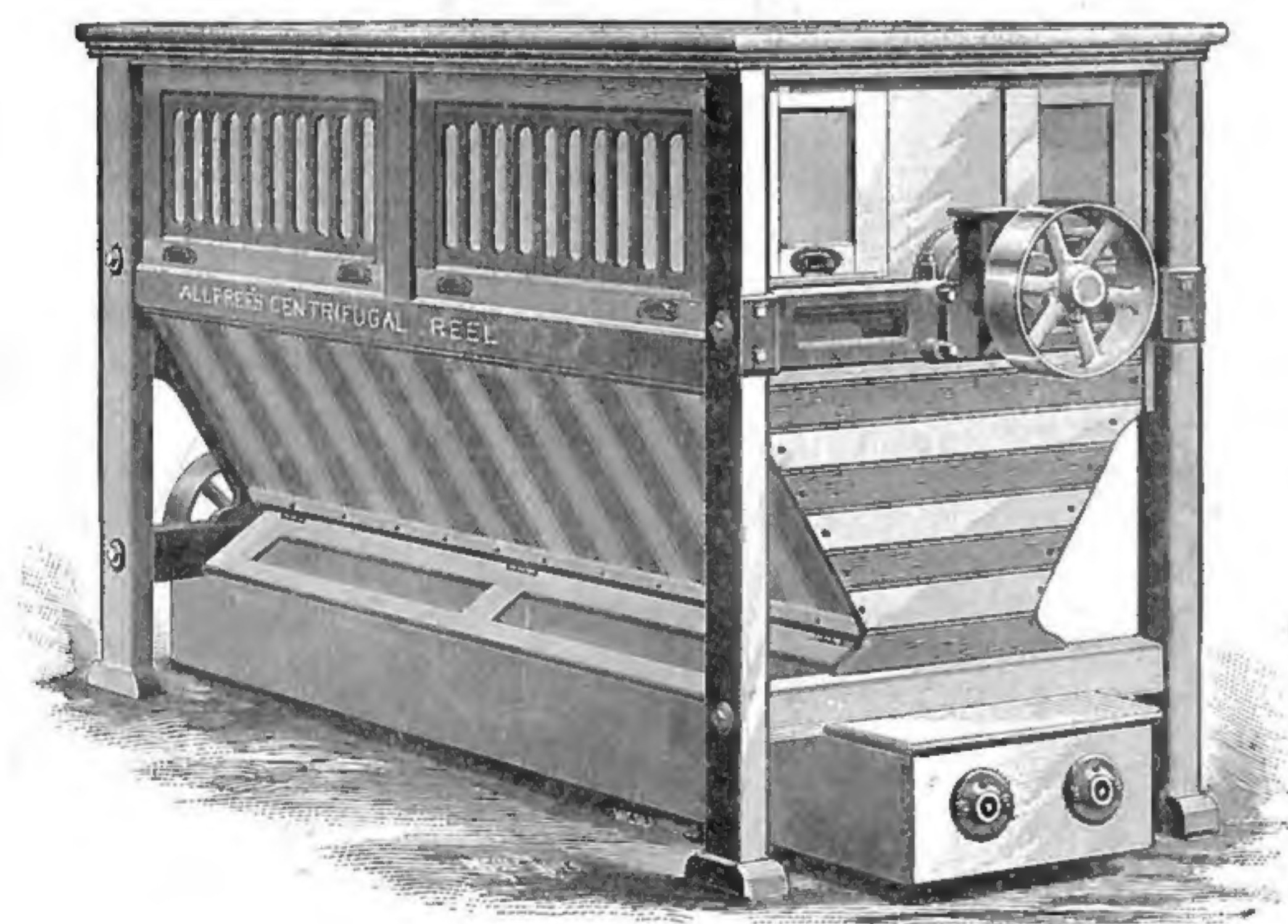
The Improved National Turbine Water Wheel

The Best for Economy; The Best for Durability; The Best for Power. ONE THOUSAND FIVE HUNDRED NATIONAL WATER WHEELS IN USE Prove that our Assertions are Supported by the Leading Manufacturers in the Country. Send for illustrated catalogue and prices to the manufacturers.

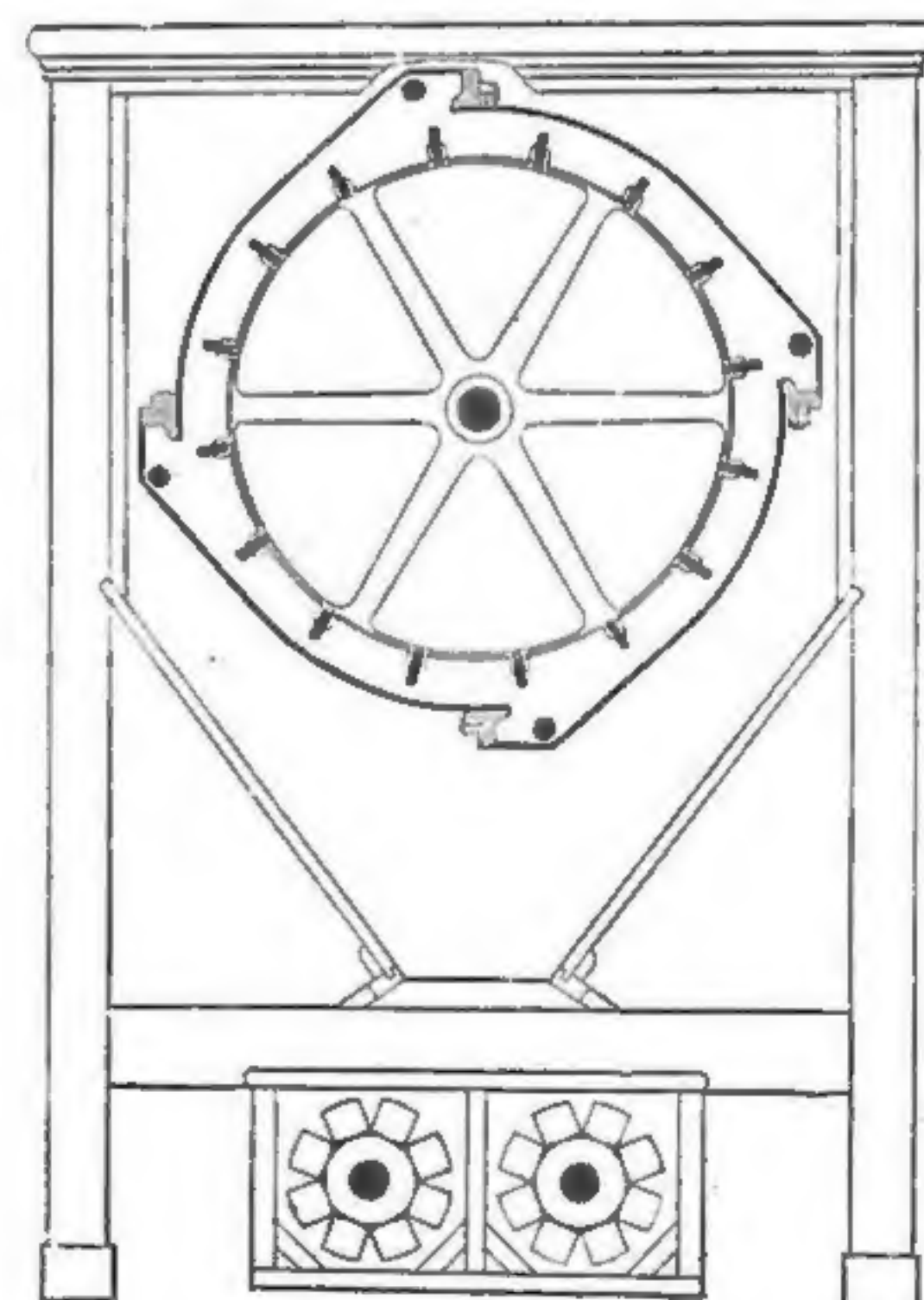


The Case Wheel & Mill Co., Bristol, Conn.

THE "ALLFREE" CENTRIFUGAL REEL



"A PAYING INVESTMENT TO ANY MILL ADOPTING IT."



THE J. B. ALLFREE CO., INDIANAPOLIS, IND.

SHELBYVILLE, IND., DEC. 16, 1889.

GENTLEMEN: Replying to your favor of the 9th inst., asking how I am suited with the Centrifugal put in the "Brandywine Mills" last June, will say that it is a happy surprise. IT DOES MORE THAN YOU CLAIMED FOR IT to my entire satisfaction (remember you induced me to use a No. 2 instead of a No. 1 in my fifty-barrel mill). Judging from the amount of stock it can handle, would think a No. ½ would be large enough for my mill. IT MAY BE EQUALED BUT NEVER SURPASSED AS A PERFECT AND LIGHT RUNNING MACHINE. I can heartily recommend your Centrifugal, and am satisfied that it will prove a PAYING INVESTMENT TO ANY MILL ADOPTING IT. Wishing you the best of success, I remain, respectfully,

JOSHUA HERING.

ADDRESS FOR CATALOGUE AND PRICES

THE J. B. ALLFREE CO.

MILL BUILDERS & GENERAL MILL FURNISHERS.

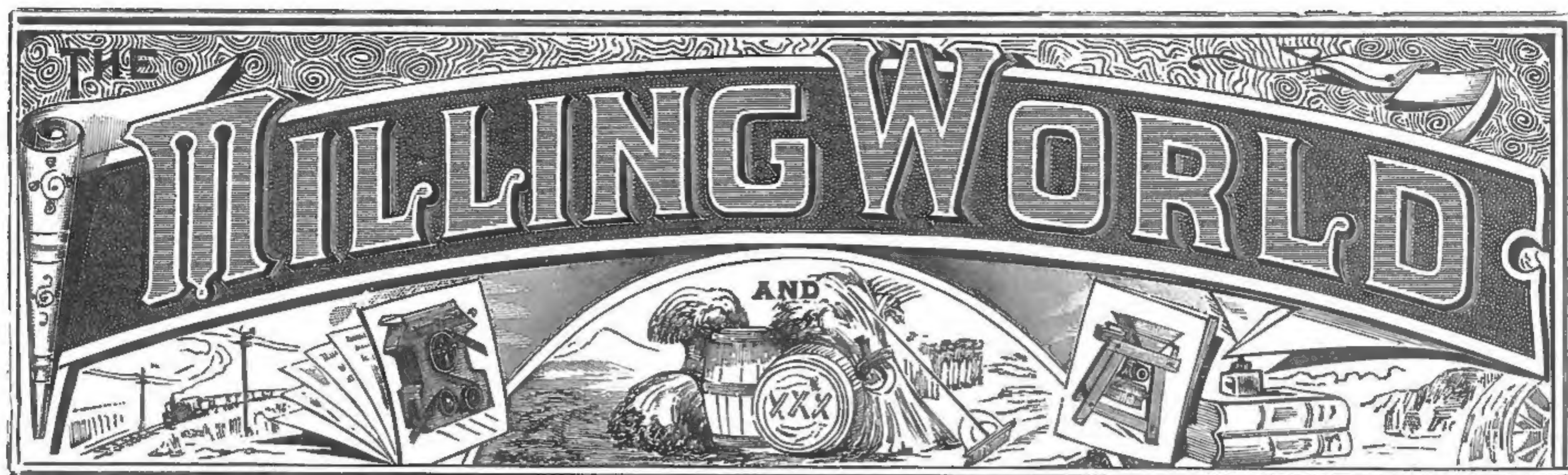
76 TO 186 SHELBY ST., INDIANAPOLIS, IND.

CASE.

CASE MFG. CO., COLUMBUS, O.
GENTLEMEN: If we were to build a hundred mills we
would not permit any other than the "CASE" roll to
enter them. They are the best roll on earth.
Yours truly,
W. C. MANSFIELD & CO.

W. C. MANSFIELD & CO.,
MERCHANT MILLERS,
CLEVELAND, TENN., AUG. 29, 1889.

CASE.



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ACCORDING to the compilation of the commercial agency of R. G. Dun and Company, the failures in the United States during 1889 were 10,882, with liabilities amounting to \$148,784,337, against 10,679 failures in 1888 with \$123,829,973 liabilities, 9,634 failures in 1887 with \$67,560,944 liabilities, 9,834 failures in 1886 with \$114,644,119 liabilities, 10,637 failures in 1885 with \$124,220,321 liabilities, and 10,968 failures in 1884 with \$226,343,427 liabilities.

THE Minneapolis "Yahoo" refers to the meeting of the Millers' National Association in Milwaukee, in June, 1889, and says: "Apart from everlastingly smashing the Bogus Resolution and sustaining unanimously the true one, but little was accomplished by it." The "Yahoo" should not forget that the action of the association at Milwaukee never changed the opinion of any well-informed person interested in the resolutions referred to. Every person, outside the small circle of the "Yahoo," who has paid any attention to the Buffalo resolution question, is satisfied that the National Association stultified itself at Milwaukee in lending itself to the desperate malice of the "Yahoo" and its close friends. That association has just that and countless similar foolish doings to thank for the exceedingly poor estimation in which it is held by the millers of the United States to-day. Bulldozing may do in some quarters, but the millers of the United States can not be bulldozed by the Minneapolis "Yahoo." If the managers of the Millers' National Association are satisfied with their own action in doctoring records a year after they are made, their satisfaction simply shows what kind of men they are, and it is evident that the millers of the country have "sized them up" properly and will have nothing to do with them. The "Yahoo" is always up the traditional tree.

THOSE who have allowed themselves to be led into believing that "the position of wheat is statistically very strong" do not seem to be able to see through a millstone even so far as the hole goes. For instance, here is a circular sent out by Messrs. Clapp and Company, of New York, N. Y., in which they say: "We recall no past season when the legitimate position was stronger. The fashion of working against the producer is yet liable to join hands with the facts led by consumers and the exporters' immediate necessities to supply the shortage that must come to England and the Continent before wheat reaped in 1890 can be available. The possibilities are great. Is this fashionable sentiment likely to hold down values much longer?" We advise Clapp and Company to open their eyes to the facts around them. No matter about "the legitimate position," the "fact" is that wheat is utterly weak. The quotations in New York now are 85 cents a bushel, against \$1.01 a bushel a year ago on our abnormally short and bad crop. Was the \$1.01 quotation a year ago "legitimate" and strong? Is the 85-cent quotation now "illegitimate" and strong? The plain truth is that the shortage of wheat in Europe on the crop of 1889 has been grossly exaggerated, from the date of the Vienna Seed Congress down to the present time. Otherwise the European demand would have been larger than it has been. Again, the ability of India and Russia to export has been

constantly underestimated, and those countries have gone on shipping considerable quantities beyond the dates when their estimated stores were to be exhausted. Although interested Americans may fail, or may refuse, to understand the situation in wheat, the European importers evidently are not afraid to trust the near future for supplies of good wheat at fair prices. If the Europeans really believed in higher prices, it seems only reasonable to infer that they would be securing supplies of fine American wheat while stocks are large and prices are very low. Are they doing that? Not if surface indications count for any thing. The one thing the European importers do not seem to care for is American wheat. They seem to prefer to scrape India, Russia and other countries to the last bushel. Our American writers of the fearfully and wonderfully constructed average grain circulars should open their eyes to facts and not follow fool theories into the slough of hopeless hopefulness. It should not be forgotten, further, that, in case the European importing countries demonstrate their practical independence of the United States on a decidedly short and bad European and Indian crop, as they seem to have determined to do this year, the near future will see American wheat still weaker than it is now as a factor in European prices and market conditions. If our fine and abundant crop, offered at the lowest recorded prices, can not attract or force them to buy now, when their other supplies are said to be short, what reason is there to suppose that they will buy of us in the future, when our crop may be below the average in quantity and quality and higher in price, and when their own crops may be up to or above the average? Americans may as well accept the inevitable. The Europeans see that the population of the United States will in a very few years, at the present rate of increase, be great enough to consume all the wheat grown in the country, and they are taking steps to make sure of their supplies in other countries, where wheat production promises to outrun consumption indefinitely. That is the meaning of the Indian, the New Zealand, the Australian, the Canadian, the Chilean and the Argentinian development. All these things may mean that "American wheat is very strong statistically," at least in the estimation of the thoughtless scribblers of the fearful average grain circulars, but they seem to point strongly in the opposite direction. The "fashionable sentiment" alluded to in the Clapp-trap quotation has rather tended to boost prices, while it is "solid fact" that has kept them down. We had thought the crop liars, prophets, expert estimators and general guessers, next to the grain gamblers, were the chief nuisances affecting the flour and grain trade, but several recent specimens of grain-circular literature seem to show that all the other nuisances are admirable and endurable "dissipations of an unscrupulous providence" in comparison with the botchers and bunglers, the dunderheads and flapdoodle-slinging nincompoops who create those circulars. They see hope even after life has gone. They see strength in growing weakness. They see activity in stagnation. They think the lowest prices on record mean the greatest strength known in the history of wheat. They are hopelessly hopeful. They are damphoolishness incarnate.

Dawson's Roller Mill

Is acknowledged to be the very best in the market. It has our Patent Automatic Centrifugal feeder, never failing to feed the stock the full length of rolls in an even sheet. It is the Latest and Best feed out, uses less power and is simple in construction. It can be placed on any style of machine with little expense. We use for roll bearings phosphor-bronze metal which will admit rolls being run at any speed without heating and with little friction, and uses little oil. We use the Dawson Corrugation, which is admitted the best in long or short system mills as the action is granulating rather than CUTTING.

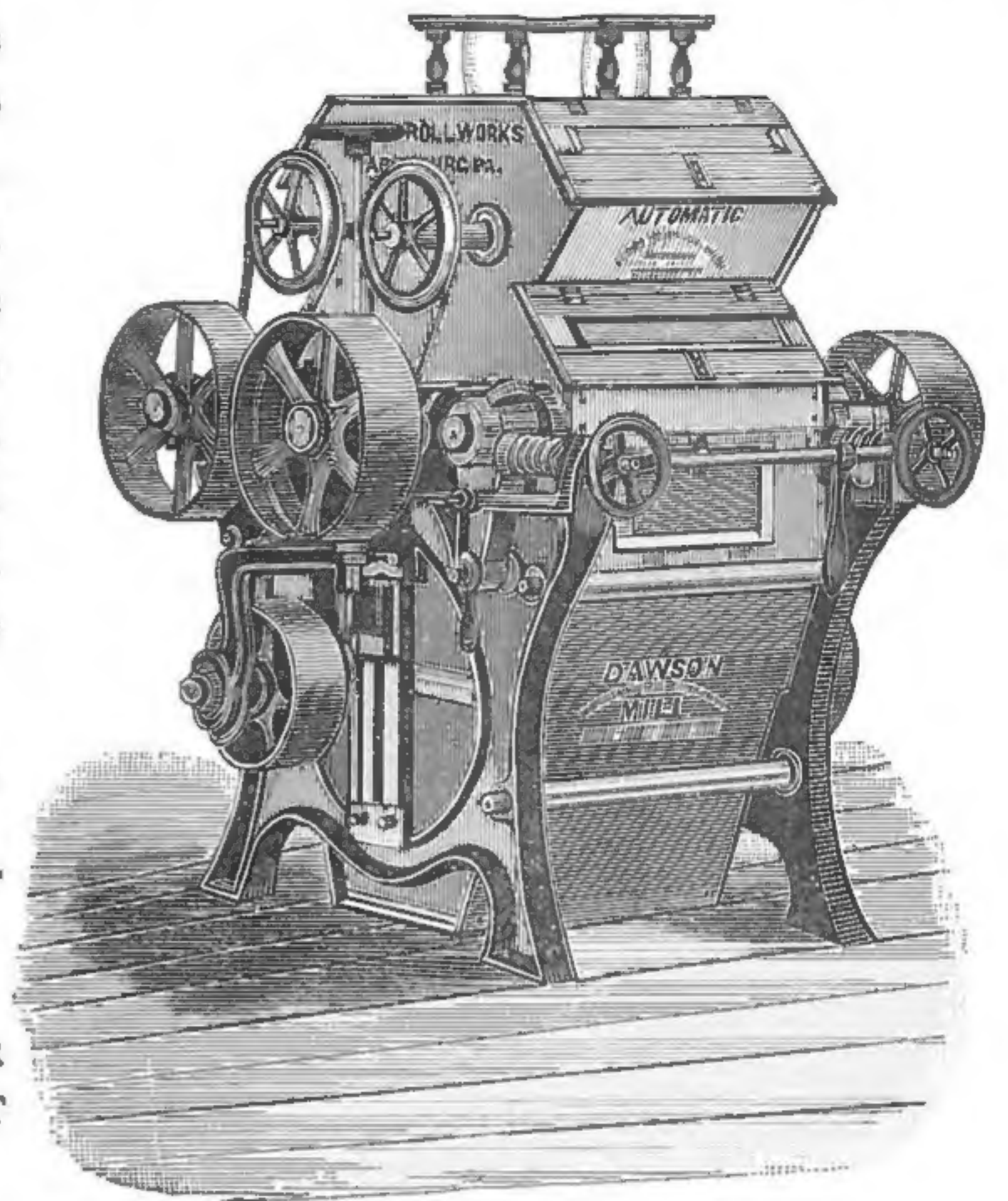
We have a large plant to Re-grind and Re-Corrugate Rolls.

Owing to our late increased facilities and central location we are enabled to ship goods promptly on the shortest notice.

PARTIES CONTEMPLATING REMODELING THEIR MILLS OR BUYING ANY ROLLER MACHINES ARE REQUESTED TO PUT THEMSELVES IN CORRESPONDENCE WITH US.

FOR PRICE LISTS AND CIRCULARS, ADDRESS,

Dawson Roll Works, Harrisburg, Pa.



The Cowles "Reliable" Sectional Wood Pulley

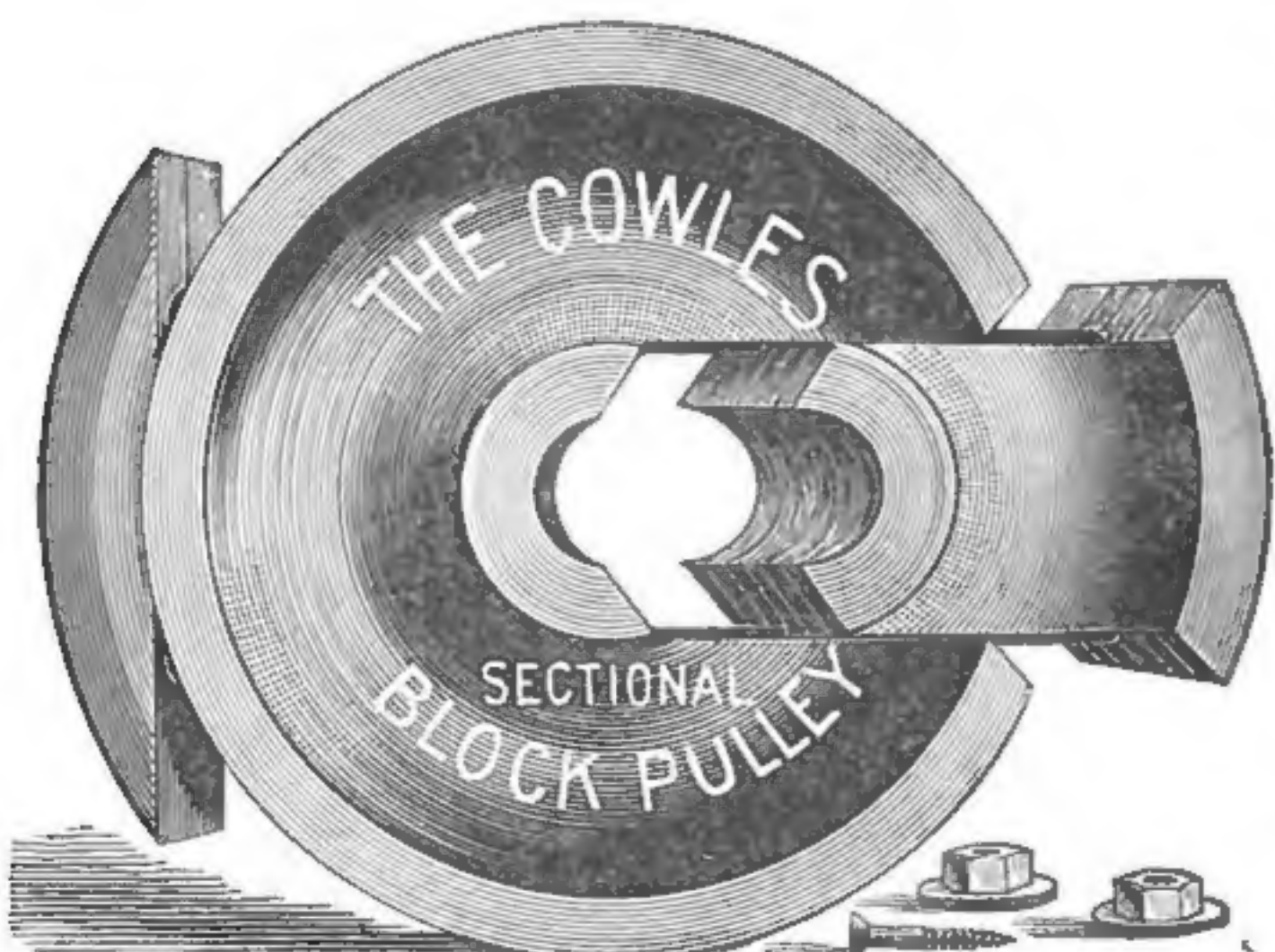


Web made of several layers glued together with grain crossing, and faced up on both sides. Iron flanges securely bolted to web. Rim put on after web has been trued up. Web and rim turned on inside and face, making perfect running pulley. Rim supported entire circumference. Positive self-gripping device for securing pulley to shafting, which is self-centering, and can not slip with wear.

A wooden rim pulley transmits from 30 to 50 per cent. more power with same belt than an iron one.

Two-thirds lighter than iron, bearings will wear longer and the expense for lubricant will be less.

Having solid web, there is no air resistance. The "Reliable" can be placed on shaft or position changed in one-fourth the time required with any other pulley.



EDWARD GERMAIN,

SOLE MANUFACTURER

SAGINAW, MICH., U.S.A.



PUBLISHED EVERY MONDAY. OFFICES: { Corner Pearl and Seneca Streets,
Over Bank of Attica.
McFAUL & NOLAN, - - PROPRIETORS.
THOMAS MC FAUL. JAMES NOLAN.

SUBSCRIPTION.

In the United States and Canada, postage prepaid, \$1.50 Per Year, in advance; remit by Postal Order, Registered Letter, or New York Exchange. Currency in unregistered letter at sender's risk.

To all Foreign Countries embraced in the General Postal Union, \$2.25 Per Year, in advance.

Subscribers can have the mailing address of their paper changed as often as they desire. Send both old and new addresses. Those who fail to receive their papers promptly will please notify at once.

ADVERTISING.

Rates for ordinary advertising made known on application.

Advertisements of Mills for Sale or to Rent; Partners, Help or Situation Wanted, or of a similar character One cent per word each insertion, or where four consecutive insertions are ordered at once, the charge will be Three cents per word. No advertisement taken for less than 25 cents. Cash must accompany all orders for advertisements of this class.

Orders for new advertisements should reach this office on Friday morning to insure immediate insertion. Changes for current advertisements should be sent so as to reach this office on Saturday morning.

EDITOR'S ANNOUNCEMENTS.

Correspondence is invited from millers and millwrights on any subject pertaining to any branch of milling or the grain and flour trade.

Correspondents must give their full name and address, not necessarily for publication, but as a guarantee of good faith.

This paper has no connection with a millfurnishing house and aims to represent the trade without prejudice, fear or favor.

Address all communications

THE MILLING WORLD,
BUFFALO, N. Y.

Entered at the Post Office, at Buffalo, N. Y., as mail matter of second-class.

SITUATIONS WANTED.

Advertisements under this head, 25 cents each insertion for 25 words, and 1 cent for each additional word. Cash with order. Four consecutive insertions will be given for the price of three.

WANTED.

Situation wanted by a Miller of 9 years' experience, 24 years of age, of steady habits and willing to work. Address, H. care of The Milling World, Buffalo, N. Y.

WANTED.

Western New York, Ohio and Pennsylvania mills in want of a temperate miller, with 20 years experience, should write to the undersigned, who is now running a first class mill, but would like to make a change this fall. Address, W., care of THE MILLING WORLD. 56

SPECIAL ADVERTISEMENTS.

Advertisements of Mills for Sale or Rent, Partners Wanted, Machines for Sale or Exchange, etc., etc., cost 1 cent per word, for one insertion, or 8 cents per word for four insertions. No order taken for less than 25 cents for one insertion, or 50 cents for four insertions. Cash must accompany the order. When replies are ordered sent care of this office 10 cents must be added to pay postage.

FOR SALE.

Merchant and grist mill. The best water-power in Ohio. Situated five miles from Mentor, Ohio. For particulars enquire of C. S. JOHNSON, West Mentor, O. 1216

FOR SALE.

Mill property in Central New York, for much less than it is really worth, with small payment down, or would take a partner with small capital to take charge of and run the mill. Address "B," care of THE MILLING WORLD, Buffalo, N. Y. 1720

FOR SALE.

Several good second-hand and new turbines of various styles. Second-hand price list and descriptive matter and prices of our new machines sent free. Every one interested in the shortest route to successful milling on rolls or in grinding corn and feed with the least expense of power, should address us before buying.

FLENNIKEN TURBINE CO.,
Dubuque, Iowa.

8tf

MILL MACHINERY FOR SALE.

One No. 0 Standard Combined Separator, Smutter and Brush Machine; new, best make.
One 20-Inch Under-Runner Portable Mill, French Buhr Stone, capacity 10 to 12 bushels per hour; new, best make.
One 14-Inch Vertical Feed Mill; best make, new, a bargain.
One No. 6 Dustless Separator; new, a bargain.
One No. 1 Full Rigged Combined Dustless Separator; new, a bargain.
Four Corn Cob Crushers, right or left hand, driven from above or below, best make; capacity 40 to 60 bushels per hour.
Three No. 1 Corn Shellers, capacity 200 to 300 bushels per hour; new.
One No. 2 Purifier. New. Best make. A bargain.
For particulars address, FRANK SMITH, care of THE MILLING WORLD, Buffalo, N. Y. 5tf

M-I-L-L-E-R-S

Wanting Bolting Cloths should write for discounts on same before purchasing elsewhere to

SAMUEL CAREY
17 Broadway New York.

FOR RENT.

Clinton Mills, at Black Rock, Buffalo, for rent on reasonable terms, recently repaired and put in good order. Apply to CHAS. DANIELS, over 311 Main Street, Buffalo, N. Y. 6tf

WANTED.

A miller who can purchase an interest. Business rapidly increasing. Must enlarge mill and add machinery. Only mill in this, Gray's Harbor, region. Good water-power. Address, REV. HIRAM F. WHITE, Elma, Chehalis County, Washington Territory.

DECEMBER fire-losses in the United States and Canada footed \$7,304,800. The milling and allied industries contributed \$1,099,000 to that total. The total losses for 1889 footed \$131,949,250, against \$123,290,520 in 1888 and \$129,264,400 in 1887.

HAVE the members of the Consolidated Roller Mill Company read Secretary Barry's Fort Wayne lingo about "patent sharks" and their "rascally schemes"? It amuses the horse marines to think of the "patent sharks" trembling in their boots before the Tom Thumb Juggernaut of the Millers' National Association!

WHAT has become of ex-president Seybt, of the Millers' National Association? Formerly one of the most prominent and active men in that body, he now seems to have dropped from sight altogether in its management. Has his disappearance any possible connection with the Milwaukee hoodooing of the Bogus Resolution business? Or is he simply a man too honorable and too fond of justice and truth to herd with the Minneapolis rule-or-ruin crowd?

BRITISH investors are not at present hankering after Yankee flouring-mills so greedily as they were a short time ago. Possibly they are wise in avoiding a general rush and scramble for American mills. It is certain that British management would hardly answer in the operation of American flouring-mills, and the British would do well to study Yankee ways and ideas a little more before jumping into the Yankee arena and trying to take control of a gigantic industry like milling.

WHENEVER the Minneapolis "Yahoo" feels inclined to stir up the "Bogus Resolution" matter, it should remember that no attempt has yet been made to prove that the Buffalo reporter did not correctly copy and publish the original resolution. Until the "Yahoo" and its friends can show that the reporter did not copy the resolution correctly, it has the weak and wrong side of the question, and no action or thousand actions of an interested committee, a year or a century later, can satisfy the millers and others interested that the "Bogus Resolution" has been "everlastingly smashed." About the only persons or things "everlastingly smashed" seem to be the "Yahoo" and its bosom friends, who are mismanaging the national association. In the public estimation they are "everlastingly smashed."

LAST year the European flour-makers were rejoicing openly over the straits in which American flour-makers found themselves by reason of a short crop of poor wheat. This year the Europeans are in the predicament over which they rejoiced so loudly last year, when it involved our millers, and they are not very hilarious over either the present conditions or the future outlook. Some of the great Budapest mills will pay no dividends on the operations of 1889, and they can not look for relief until the next crop is ready. Should that crop prove an average or abundant one, the Austro-Hungarian millers will once more be in a favorable position. Should the next crop prove short and poor, many of the Austro-Hungarian mills will be bankrupted. Americans will not rejoice over the difficulties that beset their transatlantic neighbors, even though those neighbors have not always shown magnanimity towards American millers. Misfortune is never a fit subject for rejoicing, and we hope our neighbors over the water now appreciate the bad situation in their own lands which, a year ago, they thought so amusing in the United States.

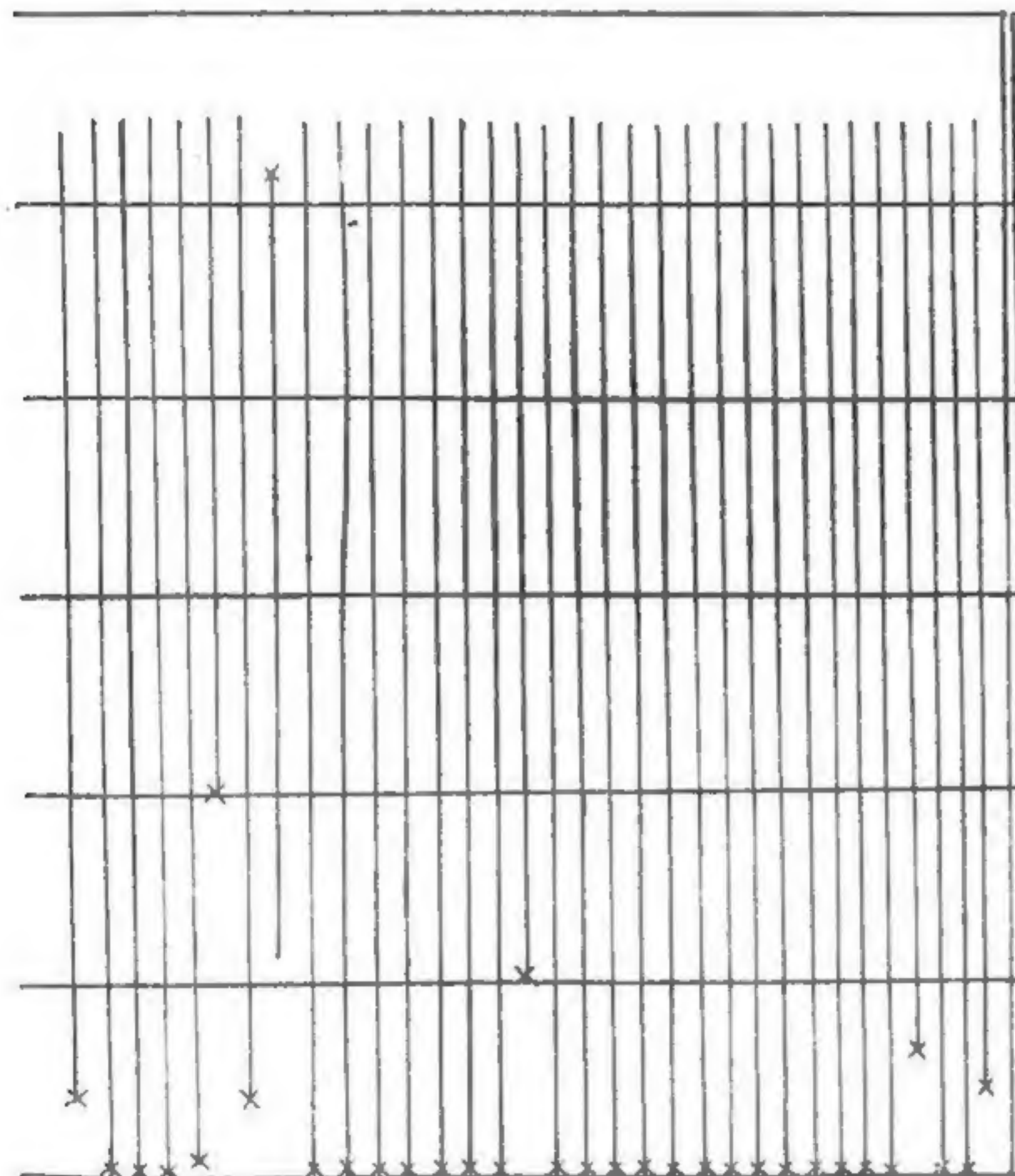
A SAW-FLY BORER IN WHEAT.

IV.

The results of the observations of July 15th are indicated in Table III. Twenty-five of the 33 specimens had made the circular cut, and 13 had spun their cocoons. One specimen, the sixth from the left in the table, had made its cocoon above the second joint, eight inches from the ground. Another specimen was at the top of its burrow. These two were all that were not below the reach of the reaper; the only other specimen above the first joint being only one and one-half inches from the ground. The square yard of wheat examined July 17th contained 15 infested straws. All but two of the larvae were at the surface of the ground; of these one was five inches from the ground, above the first joint; and the other six inches from the ground, and above the second joint.

Table IV shows the results of the examination of July 19th. Eighteen infested straws were found. All larvae had penetrated to the ground. All had made the circular cut and partition below it, and all but four had spun their cocoons. From these observations it is evident that a small proportion of the insects are probably removed from the wheat fields in the straw; and consequently there is danger of the spreading of the species in this way. It is probable that the species

TABLE III. (June 15th.)



Graphical representation of the positions of larvae and extent of their borings. The spaces between the horizontal lines represent the sections of the straws; each vertical line indicates the extent of the boring of a larva; and the x the position of the larva when found.

was introduced into this country in straw used as packing, and it may be further distributed here in the same way.

NOTE 5. On the date of pupation. Owing to my absence from Ithaca during the winter, the date at which the larvae changed to pupae was not definitely ascertained. On the 23d of April I was able to find in the field only pupae; but larvae which had been kept cool in the hibernating-room of the Insectary had not yet changed to pupae.

NOTE 6. On the abundance of *Cephus pygmaeus* at Ithaca. The following observation will serve to indicate the abundance of the species in this locality: In 1887 four examinations were made to determine the proportion of wheat straws infested with the following results:

In a lot of 110 straws	10 were infested.
" " 86 "	6 " "
" " 46 "	6 " "
" " 34 "	4 " "

The following observations were made in 1889:

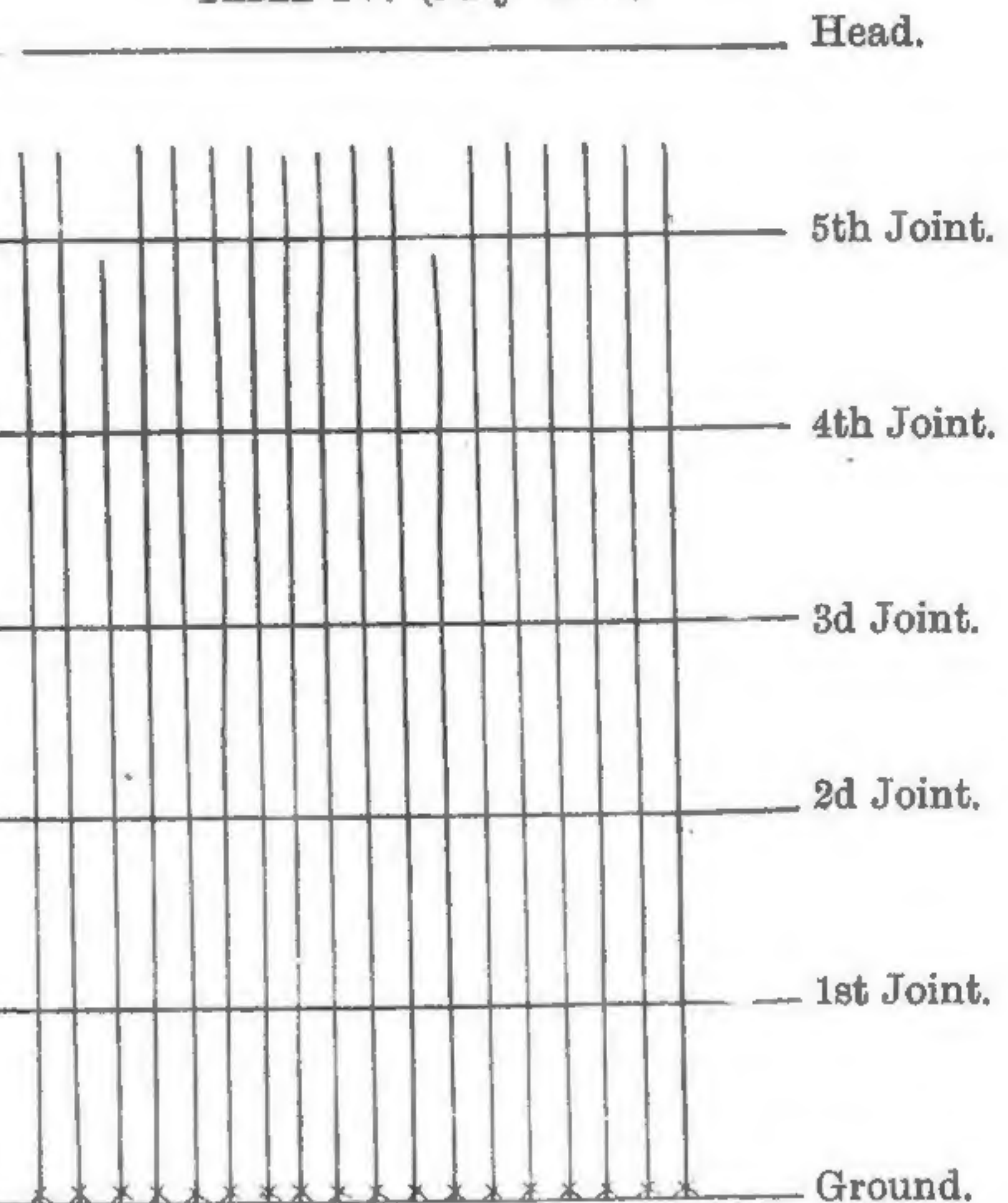
In one square yard containing	380 straws	30 were infested.
" " " "	300 "	21 " "
" " " "	380 "	19 " "
" " " "	300 "	33 " "
" " " "	360 "	15 " "
" " " "	365 "	18 " "
" bundle containing	2325 "	99 " "
" " " "	2376 "	16 " "
" " " "	2373 "	173 " "

The three bundles were taken from widely different parts

of the field. The six square yards examined were all situated on the side of the field nearest the clover field from which the Saw-flies spread. They, therefore, doubtless indicate an unusually large proportion of infested straws. At the time these six examinations were made I was unable to remove the grain from other parts of the field, on account of other experiments which were being conducted upon it.

NOTE 7. On the effect of the boring of *Cephus pygmaeus* upon the quantity of grain developed. In 1887 only a single observation was made. It was found that ten infested stalks produced 273 kernels which weighed 10 grams; while ten stalks not infested produced 261 kernels which weighed a little more than 11 grams. This indicates that the kernels from the infested stalks were not so well filled as those from the non-infested stalks; for, although there were a greater number of the former, they did not weigh as much as the latter. In fact the average weight of the kernels from the infested stalks was 13 per cent. less than those from the other lot. In 1889, unfortunately, a comparison was not made in the weight of the kernels from infested and non-infested stalks. The importance of this was not appreciated till I undertook to digest the results of the experiments. Comparisons were made between the weight of the grain from the infested straws in each bundle, and the weight of the

TABLE IV. (July 19th.)



grain from three lots of non-infested straws from the same bundle. The following are the results obtained. A possible explanation of these results has been suggested.

In bundle No. 1:

The grain from	99 infested heads weighed 85 grams.
" " "	99 non infested heads weighed 70 grams.
" " "	99 " " " 77 " "
" " "	99 " " " 67 " "

In bundle No. 2.

The grain from	16 infested heads weighed 12.3 grams.
" " "	16 non-infested heads weighed 11.3 grams.
" " "	16 " " " 13.6 " "
" " "	16 " " " 11.9 " "

In bundle No. 3.

The grain from	173 infested heads weighed 165 grams.
" " "	173 non-infested heads weighed 140 grams.
" " "	173 " " " 130 " "
" " "	173 " " " 120 " "

NOTE 8. Parasites of *Cephus pygmaeus*. On the 23d of April a crippled Ichneumon-fly was found emerging from a cocoon of *Cephus pygmaeus*. Unfortunately the specimen is in too poor a condition to admit of determining the species. On the 20th of July a parasitic larva was found in the cell of a *Cephus* larva at the base of a wheat stalk. The parasite was outside of the body of the *Cephus*. The latter was soon destroyed; and the parasite spun a cocoon, from which it has not yet emerged.

NOT EXACTLY MILLING POETRY!

THE BRITON AND HIS GOLD.

"Hit's hover the sea h'I'll gunnink gao!"
Said the Briton bold, said he.
"An' the blawsted Yankees soon h'I'll shaow,"
Said the Briton bold, said he,
"Ow the British musket 'its an' kills
When loaded with Sterlink coin an' bills,
An' h'I'll buy their bloomink flaourink-mills,
Their butcheries, breweries, stores an' stills,
Their helevators, prairies an' 'ills,
Their cities an' taowns with hall their frills!"
Said the Briton bold, said he.
He loaded his ship with gold galore,
Did the Briton bold, did he,
And straight to the blawsted Yankee shore
Sailed the Briton bold, sailed he.
He ran his vessel, all filled with loot,
To a dock at an elevator's foot,
Lifted the hatch and ran in the "boot,"
Turned on the steam with hiss and toot,
And snickered to hear the gold coins shoot
With pleasant chink up the bucketed chute,
Did the Briton bold, did he.
"Come on naow, Yanks!" he cried out bold,
Did the Briton bold, did he.
"Baow daown to the gleam of British gaold!"
Said the Briton bold, said he.
"Hif ye 'as hannathink 'ere to sell,
Ye 'as haonly your bloomink price to tell!
H'I'll buy hit hat hwunst, an' pay ye well,
Then back h'I'll gao an sit in meshell
While ducats roll hinto me bank pell-mell—
Ho! H I'm a Briton, a rum ole fel!"
Said the Briton bold, said he!
Then the Yankees came with pockets deep,
To the Briton bold came they,
And threw their properties in a heap,
And they took his gold for pay!
O! They took that gold with winks and grins!
They emptied those elevator bins!
They sold him flour-mills and shops and gins,
Feather foundries, shops for making pins,
Churches, asylums, old fruit-can tins—
I rather think they wrought some sins
On the Briton bold, did they!
He paid three sovereigns for one, I trow,
Paid the Briton bold, paid he.
His pluck he seemed determined to show,
Did the Briton bold, did he.
On the guileless Yankees sweet he beamed!
The worse he was gulled, he happier seemed!
O! never of getting "done" he dreamed,
As out his yellow sovereigns streamed!
The worst of deals he highest esteemed,
And every seller "sold" he deemed,
Did the Briton bold, did he!
He sailed to Lunnion with bonds and stocks,
Sailed the Briton bold, sailed he.
"HI've killed the Yankees with 'British Rocks'!"
Quoth the Briton bold, quoth he.
"From this time hon me days h'I'll parss
Ha drorink hinterest hon prairie grarss,
Hon fine flaour-dust, hon natcheral garss,
Hon measureless mines o' happle-sarss,
Hon shops devaoted to makink glarss,
Hon beer-facam stronger than Muir or Barss!"
Said the Briton bold, said he!
He lived in old Lunnion town so gay,
Lived the Briton bold, lived he.
He calmly waited a year and a day,
Did the Briton bold, did he,
Then he cabled under the ocean deep:
"Send me the "divvy" due hon me 'eap!
Send me me hinkum from feathery sheep!
Send me me divvy from gaold-mines deep!
Send me the grain the Dakaotans reap!
Send me me gaold—h'I'll heat and sleep!"
Said the Briton bold said he.
But under the sea he wired in vain,
Wired the Briton bold, wired he,
For neither divvy nor gold again
Got the Briton bold, got he!
For the feather-foundries burned to ash,
The butcheries failed on horse-meat hash,
The breweries sank in their own sour-mash,
The flour-mills burned with exploding crash,
The gold-mines dropped in an earthquake gash,
And everything "scooped" the Briton rash,
Scooped the Briton rash, scooped him!
"Ho! HI'm a reggolar 'done,' plucked goose!"
Said the Briton bold, said he.
"For demnition Yankees h'I've naow nao huse!"
Said the Briton bold, said he.
"They've done me hout'n me hinkum haold!
They've laid me haout hall lifeless an' caold!
Oo'd think as a Briton, rich an' baold,
Could be by them blawsted Yankees saold?"
Then in his blanket his form he rolled
And, mourning the loss of his vanished gold,
Died the Briton bold, died he!

Duluth, Minnesota, January, 1890.

Bang.

MILLING PATENTS.

Among the patents issued December 31, 1889, are the following:

Wm. White, Leeds, County of York, England, No. 418,361, a flour-dressing machine, containing the combination of the casing, the reticulated cylinder mounted therein, the brush-

shaft within the casing outside the cylinder and parallel with the axis thereof, the brush-holding frame, the brush-strip of flexible material secured thereto extending from one end of the cylinder to the other and parallel with its axis, the width of said strip being greater than the shortest distance between the outer surface of the cylinder and the outer edge of the brush-frame, so that in operation the strip first strikes the cylinder and then bends and presents its adjacent side, which lies upon and sweeps over the surface of the cylinder.

Delos Cornell, Boon Grove, Ind., No. 418,168, a grinding-mill.

Gottfried Geist, Hastings, Neb., No. 418,175, a wheat-hulling machine.

Chas. F. Walters, Richmond, Ind., No. 418,480, a flour-packer, described in the following claims: 1. The combination of a vertically-movable platform, a winding-shaft, chains extending from the platform and adapted for being wound upon the shaft, a resistance-wheel secured to the winding-shaft and provided with an internal friction-rim, friction-arcs mounted against rotation within said friction-rim, and mechanism for forcing the periphery of said arcs into frictional engagement with said friction-rims. 2. The combination of a vertically-movable platform, a winding-shaft, chains connected to said platform and adapted to be wound upon said shaft, a resistance-wheel fixed to said shaft and provided with an internal friction-rim, a sleeve upon said winding-shaft within said friction-rim and provided with radial wings and a lever, and friction-arcs mounted on fixed pivots and disposed within said friction-rim and having toes projecting inwardly into engagement with the wings of said sleeve. 3. The combination of a vertically-movable platform, a winding-shaft, chains attached to the platform and arranged to wind upon the shaft, a resistance-wheel fixed upon the shaft and provided with an internal friction-rim, a sleeve mounted upon said shaft and free of contact therewith and provided with radial wings and a lever, and friction-arcs mounted on fixed pivots and disposed within said friction-rim and provided with toes engaging the wings of said sleeve. 4. The combination of a vertically-movable platform, a winding-shaft, chains engaging the platform and shaft, a resistance-wheel fixed to the shaft and provided with an internal friction-rim, a fixed plate disposed near the inner edge of said friction-rim, friction-arcs pivoted to said plate and provided with inwardly-projecting toes, a friction-sleeve mounted on the shaft and having wings engaging said toes and having an operating-lever, and springs carried by the plate and engaging the friction-arcs and serving to press them inwardly. 5. The combination of a vertically-movable platform, a winding-shaft, a resistance-wheel fixed to said shaft, friction mechanism operating in conjunction with said resistance-wheel and arranged to resist the rotation of the shaft, chains engaging said platform and shaft, and spools upon said shaft to receive the convolutions of the chains and having a width corresponding to the width of the chain, whereby each chain is caused to wind in a single volute coil.

Faustin Prinz, Milwaukee, Wis., No. 418,587, a grain-separator, described in the following claims: 1. The combination of the chamber, the perforated concave plate, the conveyor-flights arranged above said plate, the trough below said plate, and the automatically-operating valve or cut-off to said trough. 2. The combination, with the chamber and means therein for separating foreign matter from the grain, of the trough below said chamber, an automatically-operating valve or cut-off to said trough, an inclined spout to receive grain from the trough, an air-flue at the lower end of the spout, and means for creating an air-current through said flue to act on the grain passing from the spout. 3. The combination of the chamber and means therein for separating foreign matter from grain, an automatically-valve-controlled trough below said chamber, an inclined spout to receive grain from the trough, an air-flue at the lower end of the spout, a settling-chamber in communication with said flue, and means for creating an air-current through said flue to act on the grain passing from the spout and for conveying matter through the settling-chamber. 4. The combination

of the trough or chamber, a conveyer therein for moving the grain, an automatically-acting valve to control the passage of grain from said trough, an inclined spout to receive grain from the trough, an air-flue at the lower end of the spout, and means for creating an air-current through said flue to act on the grain passing from the spout. 5. The combination of a trough, the automatic valve to prevent the entrance of air into the trough and regulate the feed of the grain therefrom, an air-flue, the inclined spout interposed between said trough and flue and inclining from the delivery-mouth of the trough to its discharge-opening in the lower part of the said air-flue, and means for creating an air-current through said flue. 6. The combination, with two flues, a trough for receiving the material, and an opening for the entrance of air drawn by the suction through the upper flue, of a spout interposed between said trough and lower flue and inclining from the delivery-mouth of the trough to an opening in the lower flue, means for creating a current of air through said flues, and a valve to regulate the flow of the material down said spout and at the same time prevent the air-current through either flue from drawing air from the other flue through said spout. 7. The combination of settling-chambers, flues opening into said chambers, the inclined spouts opening into said flues, and troughs provided with valves and located at the upper ends of said inclined spouts. 8. The combination, with the inclined spout and air-flue communicating with the lower end thereof, of a series of shakers or sieves and a trough or board located between said spout and shakers or sieves and formed into a series of pockets or chambers arranged alternately to deliver to the series of shakers or sieves on opposite sides of said trough or board. 9. The combination of a series of shoes arranged by the side of each other, a trough or board located above the receiving ends of said shoes to deliver a portion of a body of flowing grain to said shoes, and means for moving one shoe in one direction while the other is moved in the opposite direction. 10. The combination of the scalping-chamber, the perforated concave plate, conveyer-flights arranged above said plate, and a beater for beating the beard from off the grain.

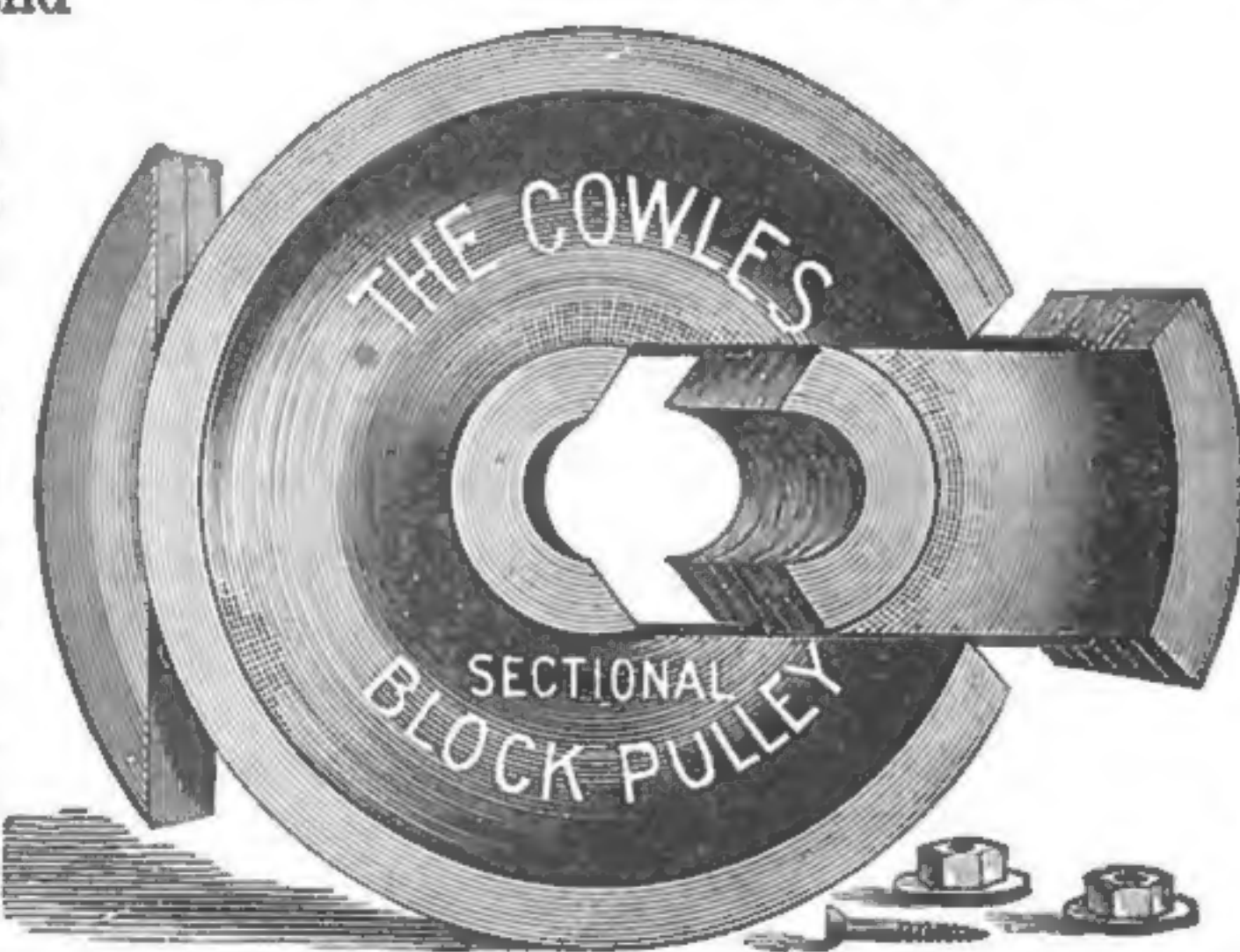
Faustin Prinz, Milwaukee, Wis., No. 418,588, a shaking screen, whose points are contained in the following claims: 1. In a grain-separator, the combination in a series of sieves arranged one above the other, a series of channels, some of which communicate with one sieve and others with another sieve to form a separate feed to each of the several sieves, and means for reciprocating said sieves and channels. 2. The combination of a series of sieves arranged one above the other, flues or channels divided in their length and communicating with the space above and below the sieves for feeding material onto the sieves and receiving material from them, whereby is effected a separate feed and delivery to and from each sieve, and a secondary sieve below the series of sieves with which said flues communicate to deliver there to the material of the several sieves. 3. The combination of

a series of sieves arranged one above the other, flues or channels divided in their length and communicating with the spaces above and below the sieves for feeding material onto the sieves and receiving material from them, whereby is effected a separate feed and delivery to and from each sieve, a secondary sieve below the series of sieves, a plate between said secondary sieve and the sieve above it, inclined toward the receiving end of said secondary sieve to receive the material from the series of flues and deliver it to the receiving end of said secondary sieve. 4. The combination of a series of sieves arranged one above the other, means for effecting a separate feed and delivery to and from each of the several sieves, supplemental sieves at the lower ends of said series of sieves to receive material therefrom, and plates or troughs under said supplemental sieves to receive material passing through the sieves and prevent it from dropping down onto the next lower sieve. 5. The combination of a series of sieves arranged one above the other, means for effecting a separate feed and delivery to and from each of the several sieves, supplemental sieves at the lower ends of said series of sieves to receive material passing from off their lower ends, plates or troughs under said supplemental sieves to prevent the material passing through one of said sieves

from dropping down onto the next lower sieve, a trough to receive the material passing through the series of supplemental sieves, and a flue communicating with the spaces above said plates and with said trough to conduct material to said trough from said plate.

George A. Smith, Paulding, O., No. 418,658, a grain-scourer, described in the following claims: 1. In a grain-scouring machine, a rotary cylinder therefor having a double covering of wire or rigid fabric, the external covering being of a coarser mesh than the internal covering. 2. A rotary cylinder having a fabric of fine mesh on its in-

terior and immediately above said fabric one of coarser mesh, and a rod or conveyer secured spirally above the outer mesh to the ends of the cylinder. 3. The combination of an outer cylinder and an inner rotary cylinder, said cylinders being covered with fabric of different mesh, the coarser fabrics being adjacent to each other. 4. In a machine for scouring wheat by attrition, the combination of a stationary outer cylinder and an inner concentric rotary cylinder, said cylinder being made up of fabric of different meshes, the rotary cylinder being mounted upon a hollow shaft with perforations, while the stationary cylinder is mounted on a frame having passage-ways communicating with a suction-fan. 5. The combination of an outer horizontal cylinder mounted in a suitable frame, one end of said frame having an inlet-opening, while the opposite end is provided with an outlet-opening, said inner frame having spaces between the outer casing, one of said spaces being occupied by a perforated incline which leads to the discharge-spout, an inner cylinder of less length than the outer cylinder, said cylinder being mounted upon a perforated hollow shaft and provided at one end adjacent to the discharge-opening with radial blades, a



THE COWLES "RELIABLE" SECTIONAL WOOD PULLEY.

suction-fan secured within a casing, said fan-casing communicating with an opening in the bottom of the outer casing, and means for rotating said fan.

THE COWLES "RELIABLE" WOOD-PULLEY.

The accompanying engravings illustrate the famous Cowles "Reliable" sectional wood pulleys, manufactured by Mr. Edward Germain, of Saginaw, Michigan. This pulley has iron flanges securely bolted to the web, which is composed of several layers of lumber glued together, with the grain crossing, which is faced up on both sides on a lathe especially built for the purpose. The rim is not nailed on the web until the same has been trued up. The web extends throughout the entire circumference to which the rim is glued and nailed, giving support to the rim the entire circumference of the pulley. The pulley has a self-gripping device for securing to shafting, which is perfect and always positive. The "Reliable" pulley can be placed on shafting in from three to five minutes, as it requires removing nuts from two bolts only, which allows a section to be removed so as to place pulley on shaft. When adjusted on shafting it requires no further attention. The "Reliable" is easily kept clean. The pulley is made to fit any size shafting by using the maker's patent wood bush. The maker claims for the "Reliable" great economy, lightness, convenient handling, power to run slacker belts, avoidance of slipping and thorough satisfaction in work.

POINTS IN MILLING.

CURRENT milling literature appears to prove that millers are always desirous of reducing the amount of wheat grain from which they make a barrel of wheat flour. Every time I pick up a publication devoted to flour-making, I find in it statements, made by men who claim to be flour-makers, that at last it has been demonstrated, by long experiment, that a barrel of "good wheat flour" may be made out of 4 bushels and any number of pounds of wheat from one to 20 pounds.

THE statement always surprises me, and it seems singular that the statement never gives the quality of flour which the 4:2, or the 4:10, or the 4:15 man turns out. The word "flour" covers a very wide variety of mixtures of bran, germ, dust, fuzz, awns, dirt and white flour. Anything resulting from the passage of the 4:2 through the rolls or the buhrs may be called "flour," but in the case of these wonderful yields what is the relation which the product bears to the "flour" that has a market standing and value as a bread-making substance?

ONCE in a while I meet a man whose name has been printed in connection with large claims on a 4:10 yield, but he never seems willing to let me, or any one else, see him make a barrel of wheat flour out of 4 bushels and 10 pounds of wheat, and he has never even been willing to show any of the flour made on that basis. Every time I have been in his mill, he was "running on a special order for John Jones," or his "4:10 flour is all out, as James Green took the last of it yesterday."

Now, it seems only fair to assert that a miller, who claims to get a barrel of flour out of a certain amount of wheat below the usual amount, ought to be willing to show the product, whether he is willing or not to allow outsiders to see his process or his machines producing the flour. A specimen of the flour would be sufficient to prove or disprove the claim of 4:10, for it could be made to show the percentage of bran, the percentage of germ, the presence or absence of undesirable non-floury matter, and an experienced investigator would be able to demonstrate whether 4:10, or 4:20, or 4:50 had been used. In other words, the sample would settle the "quality" of the product right away and suggest the amount of grain used to make it.

VERY fine wheat, ranging 60 or more pounds to the bushel, all good, all sound, all plump, uniform in size and hardness, will materially aid the miller in reducing the quantity of grain, but millers are not always able or willing to buy such ideal grain. They must take 56, or 57, or 58-pound grain oftener than 59, or 60, or 61, or 62-pound grain, and

when they go below 58 or 59-pound grain the deterioration is far more rapid than the mere loss of one pound to a measured bushel will indicate in figures. The decrease in weight means simply, in general, less real flour in the grain and about the same amount of bran. It means grain that will cause more trouble in grinding, more trouble all the way through the processes.

LET these claimants show their product and their grain, and let them give satisfactory evidence that they ever succeeded in making 196 pounds of even respectable flour from 4 bushels and 2 or 15 pounds of 57, or 58 or 59-pound grain, and they will at once open up a new vista of great results in an important industry. If the millers, as a class, have been wasting from 20 to 40 pounds of grain on a barrel of flour, it will be a great thing to convince them of that wastage and to show them how to avoid it.

I ALWAYS distrust trickery in these instances of remarkable claims. My note-book shows a large number of inquiries on this subject, and the answers are almost unanimously against the large claims of yield. For instance, not one miller, whom I have questioned in two years, was willing to believe that any miller had ever got 196 pounds of good marketable flour out of 4:2. One miller thought 4:25 of 60-pound wheat would be possible, under exceptional circumstances, such as the best machinery in the best possible condition, operated with the utmost care by the most competent men, and with particular attention paid to the cleaning of the grain. Others put "a good low limit" at 4:35, and the great majority preferred to talk of figures from 4:40 upward.

WHAT do these claims mean? Take 4:2 for instance. In 60-pound wheat the 4:2 means a yield of 80.9 per cent., in 59-pound wheat 82.3 per cent., in 58-pound wheat 83.3 per cent., in 57-pound wheat 85.2 per cent., and in 56-pound grain 86.7 per cent. of flour. Ordinarily 70 to 72 per cent. is considered a fair yield, and yet here is a claim of 80 to 86 per cent., with the percentage growing greater as the grain grows poorer! Evidently these monstrous claims are open to suspicion.

CATARRH.

CATARRHAL DEAFNESS—HAY FEVER.
A NEW HOME TREATMENT.

Sufferers are not generally aware that these diseases are contagious, or that they are due to the presence of living parasites in the lining membrane of the nose and eustachian tubes. Microscopic research, however, has proved this to be a fact, and the result of this discovery is that a simple remedy has been formulated whereby catarrh, catarrhal deafness and hay fever are permanently cured in from one to three simple applications made at home by the patient once in two weeks.

N. B.—This treatment is not a snuff or an ointment; both have been discarded by reputable physicians as injurious. A pamphlet explaining this new treatment is sent free on receipt of stamp to pay postage, by A. H. Dixon & Son, 337 and 339 West King street, Toronto, Canada.—*Christian Advocate*.

Sufferers from Catarrhal troubles should carefully read the above.

SPECIAL NOTICES.

BOLTING CLOTH.

Do not order your cloth until you have conferred with us. It will pay you, both in point of quality and price. We are prepared with special facilities for this work. Write us before you order.

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N. B.—All Mill Picks ground and ready for use (both old and new) before leaving the shop. No time and money lost grinding rough and newly dressed Picks. All come to hand ready for use.

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GLASS-BLOWING BY MACHINERY.—Glass-blowing by machinery is being performed successfully at Ellenville, New York. The machine consists of an iron upright, around which revolve arms fitted with molds for shaping the glass. A pipe supplied with a current of air and readily manipulated by the operator does the work of blowing. The machine is said to be capable of turning off 100 dozen perfect bottles a day. It costs but about \$200 and will take the place of two skilled men, who command from \$5 to \$7 a day each. The machine is an English invention and has been in use about a year.

GENERAL NOTES.

FOLLOWING are the dimensions of four great western water storages for irrigation recently completed in the West: 1. The Walnut Grove dam, near Prescott, Arizona, 110 feet high, 750 acres, capacity 4,000,000,000 gallons. 2. Merced dam, in central California, 1 mile long, 60 feet high, 650 acres, capacity 5,500,000,000 gallons. 3. Sweetwater river dam, near San Diego, Cal., 90 feet high, 725 acres, capacity 6,000,000,000 gallons. 4. The Bear Valley dam, San Bernardino, county, Cal., 60 feet high, 2,250 acres, capacity 10,000,000,000 gallons.

CANADIAN BUSINESS INTENTIONS.

Millers and farmers, merchants and manufacturers, railroad managers and patrons are all equally interested in the efforts which the Canadians are making to insert a finger into the American business pie. Commenting on the foreign trade of the port of Montreal for the season just ended, the "Canadian Journal of Commerce," after pointing to the increased traffic of the port says:

"Our policy is to draw larger traffic from the American Northwest, from territory which in reality is tributary to Montreal in a commercial sense, as offering the speediest and most direct route to and from Europe. Such thriving centers as St. Paul, Minneapolis and Duluth are now connected with this port by the Sault line, and energy and enterprise seem alone wanting to make business relations both close and profitable. The efforts of the Canadian Pacific to divert Western trade to Canadian ports is deserving of recognition. It is said to be the intention of the company to build six fine steamers to ply between Chicago, Milwaukee, Gladstone and Owen Sound. Elevators and terminal facilities are to be provided at the latter point. This will save the long rail haul via Sault Ste. Marie around Georgian Bay. It is proposed to give a through lake and rail rate to Montreal as low as that now possessed by Baltimore."

Just what "the efforts of the Canadian Pacific to divert Western trade to Canadian ports" consist of may be seen in the following posted official rates of that road on wheat:

C. P. R. WHEAT RATES FOR CANADIANS.

	Per bushel.
Winnipeg to Toronto.....	27 cents
Winnipeg to Montreal.....	27 3.5 "
Winnipeg to St. John.....	38 1.10 "
Winnipeg to Halifax.....	38 1.10 "

C. P. R. WHEAT RATES FOR AMERICANS.

Minneapolis to Toronto.....	15 cents
Minneapolis to Montreal.....	21 "
Minneapolis to St. John.....	27 "
Minneapolis to New York.....	21 "
Minneapolis to Boston and Portland.....	24 "

It is a question merely of the time for which Canadians will submit to such discrimination as these figures on wheat reveal. They may soon arrive at the conclusion that it does not pay Canadians to tax themselves to carry more cheaply for Americans than their road seems willing to carry for Canadians. When they reach that conclusion, the

Canadian Pacific's "efforts" will be "recognized" in a way not at all pleasant or profitable to that corporation. It is mainly owing to the astonishing discrimination shown in the quoted rates that so much American wheat has gone into Canada, as that discrimination has powerfully aided the inequitable grain and flour duties in damaging the Canadian milling business. The greedy eagerness of the Canadians to get a part of the American business of transportation is a singular display, and it deserves close attention by American legislators, whose good-nature has permitted foreigners to participate in business that has been created by Americans, and which should be rigidly held for and by Americans. If they can not run their mills in Canada, let the owners come to the United States. If their railroads can not maintain themselves on Canadian business, let them shut down. There is no claim upon the United States to support the subsidized foreign corporations, whose interests conflict directly with those of our own private concerns.

CONTEMPORARY COMMENT.

Advices from Detroit state that seventy interior points have less wheat on hand than at any corresponding time in ten years.—*Chicago "Daily Trade Bulletin."*

For daring to express the opinion that the bucket-shop cases might have been better managed, and that the lower courts could not and would not overrule the decision of the Supreme court, "Daily Business" was pilloried by President Seaverns and his friends and so far as lay in their power its privileges on the floor were curtailed—a pleasant reward for four years of as hard and earnest work as were ever put in for the accomplishment of a high purpose.—*Chicago "Daily Business."*

Looking back a dozen years, it is an easy matter to recall inventions which aimed to revolutionize milling. How many of them have found a permanent place in our milling? Some of these machines would have proved useful adjuncts; but their inventors staked all on their ability as revolutionists and failed. Small inventions are the most remunerative. Fortunes have been made out of what were, seemingly, trivial novelties, while inventions that have promised great things have come to naught. The lesson we think is obvious. What we need in this world is greater attention to details. We need it in milling. Try to save a pound of flour, by your thought, or seek to keep something out of the flour or out of the feed pile which has no business there; simplify machinery or its operation. There are a score of things in flour-mills that might be improved. If you seek wealth, try your hand on some of these little problems instead of trying to find a new way of doing what is already done quite well enough. There are plenty of people who want to build, and but few who are willing to patch; and yet it is the patchers, the men who remedy a defect, that make the most money out of invention.—*Chicago "American Miller."*

The country is yet full of oats, and farmers are selling quite freely at the present time, having no confidence in the future for an advance. As to corn, there seems to be no end of it. Nebraska has been liberally shipping the corn in the last thirty days, which the farmers piled upon the ground and left exposed to the weather, as the price was so low that they did not care to buy lumber to crib it. The railroads of the west have all they can do to move the corn that will be offered during the next ninety days.—*New York "Produce Exchange Reporter."*

THE managers of the Millers' National Association propose to present, at the next annual convention, a new constitution for adoption by that body. What's the use? There is already more constitution than association, and a new charter can not erase, efface, or conceal the same old cat under the same old spoiled meal in the same fusty old bin. It is not a new constitution that is needed so much as it is a new association, with new aims, new men, new principles and new claims on the millers of the country, and with less of the contemptible narrowness, the unconcealed self-seeking and the furious, blind and malicious partisanship that have made the present association ridiculous and ineffective.

COMPOUND Condensing or Non-Condensing.

16 SIZES, 5 to 500 H. P.

Not yet equaled by any form of Engine for
HIGH FUEL DUTY AND SIMPLICITY.**STANDARD** 13 Sizes in Stock.
5 to 250 H. P.

3000 in use in all parts of the Civilized World.

JUNIOR 6 Sizes in Stock,
5 to 50 H. P.An Automatic Engine cheaper than a Slide Valve.
WELL BUILT. ECONOMICAL. RELIABLE.

Over 300 Sold the First Year.

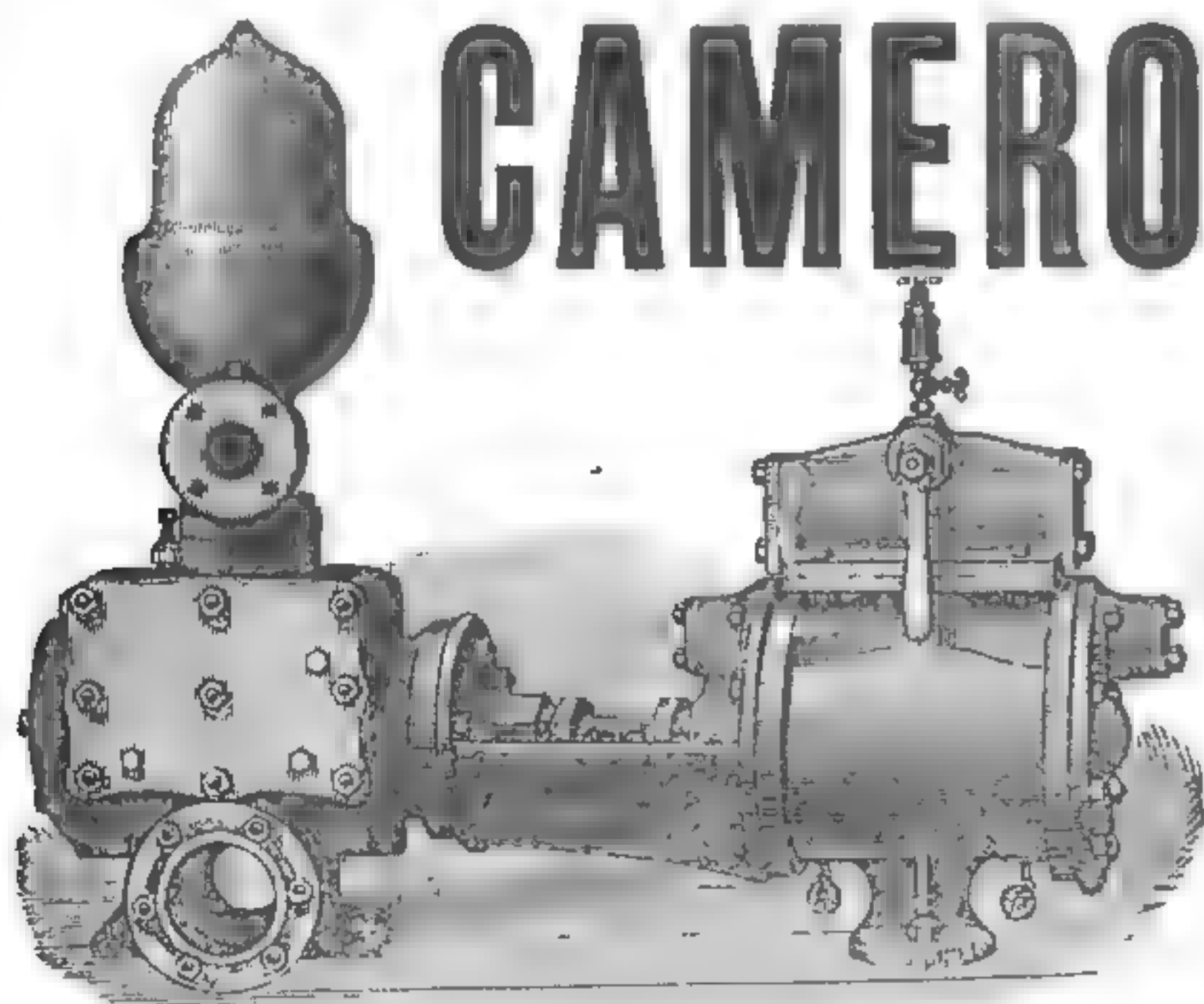
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Pittsburgh,	Westinghouse Build'g,	
Chicago,	156, 158 Lake St.	
Philadelphia,	608 Chestnut St. M. R. Muckle, Jr. & Co.	
St. Louis,	302, 304 Washington Av.	Fairbanks & Co.
Kansas City,	312 Union Avenue,	
Denver,	1330 Seventeenth St.	
Omaha,	1619 Capitol Avenue, F. C. Ayer.	
Pine Bluffs, Ark.	Geo. M. Dilley & Sons.	
Salt Lake City,	259 S. Main St.	Utah & Montana Machinery Co.
Butte, Mont.	1. Granite St.	
San Francisco,	21, 23 Fremont Street, Parke & Lacy Co.	
Portland, Or.	33, 35 N. Front St. Parke & Lacy Mch. Co.	
Charlotte, N. C.	36 College St.	The B. A. Tompkins Co.
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**CAMERON STEAM PUMP**

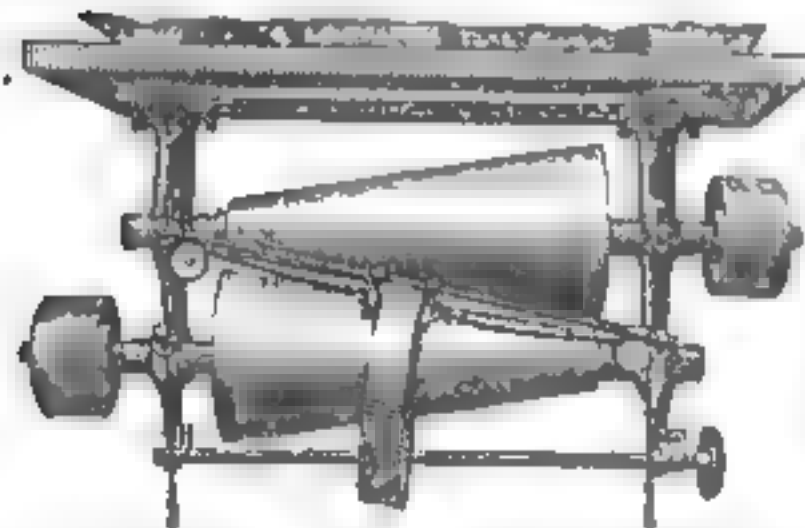
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SIMPLE! COMPACT! DURABLE!**"NO OUTSIDE VALVE GEAR."****Steam, Air & Vacuum Pumps in Every Variety**

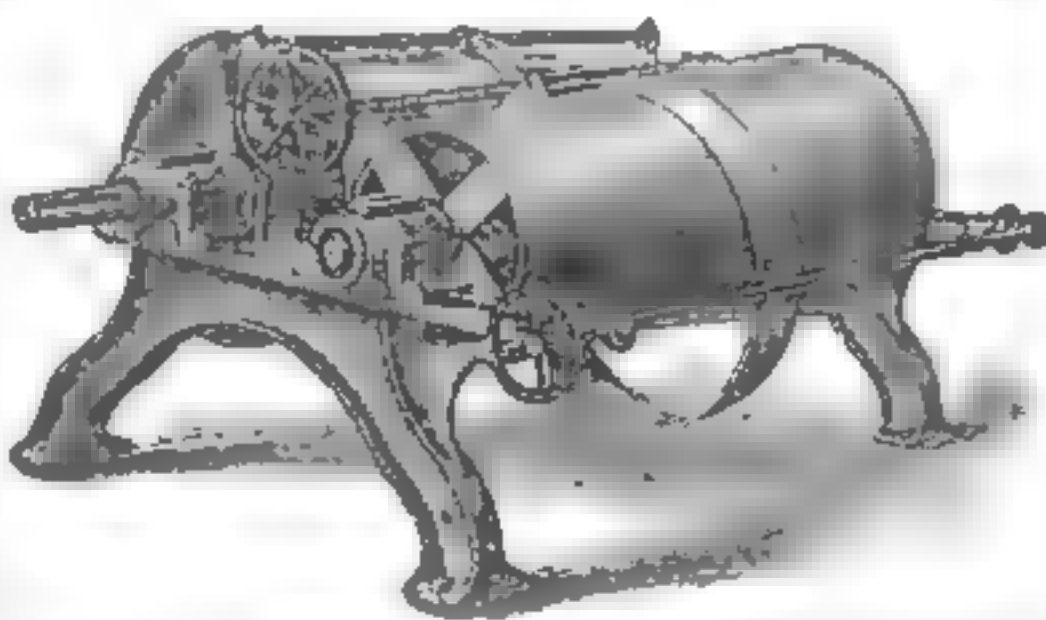
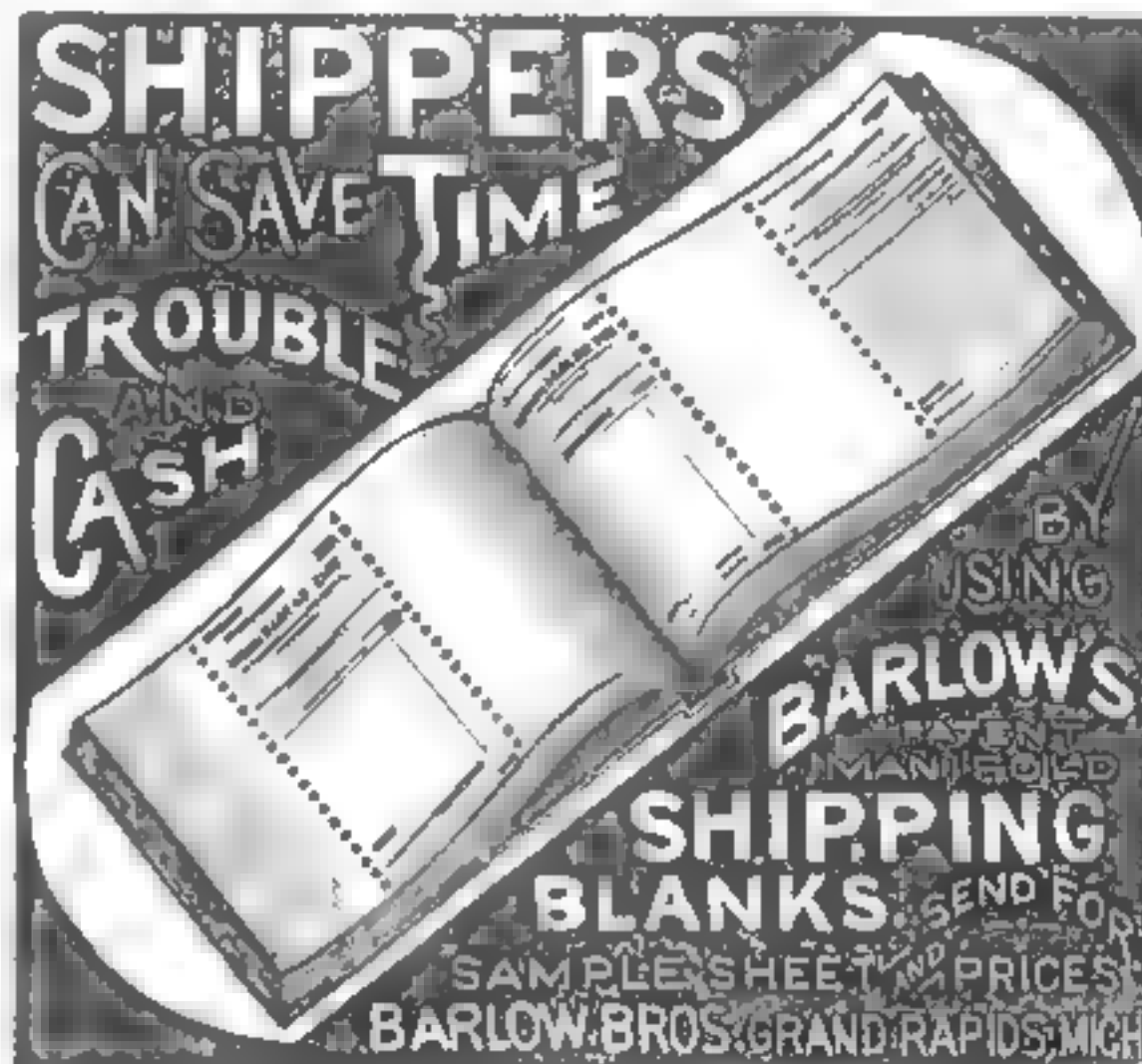
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THE EVANS FRICTION CONE & FRICTIONAL GEARING**"PATENTED."**

This cut represents a set of hanging cone pulleys. This pattern is intended for that class of machinery that stops and starts at the same speed, and at the same time be able to change the speed more or less while running. These cones are also fitted with a governor where a steady motion is required and the initial power is

fluctuating. All sizes made from $\frac{1}{2}$ Horse Power to 50 Horse Power. SEND FOR ILLUSTRATED CATALOGUE.**EVANS FRICTION CONE CO., 85 Water St., BOSTON.****SHIPPERS**

CAN SAVE TIME

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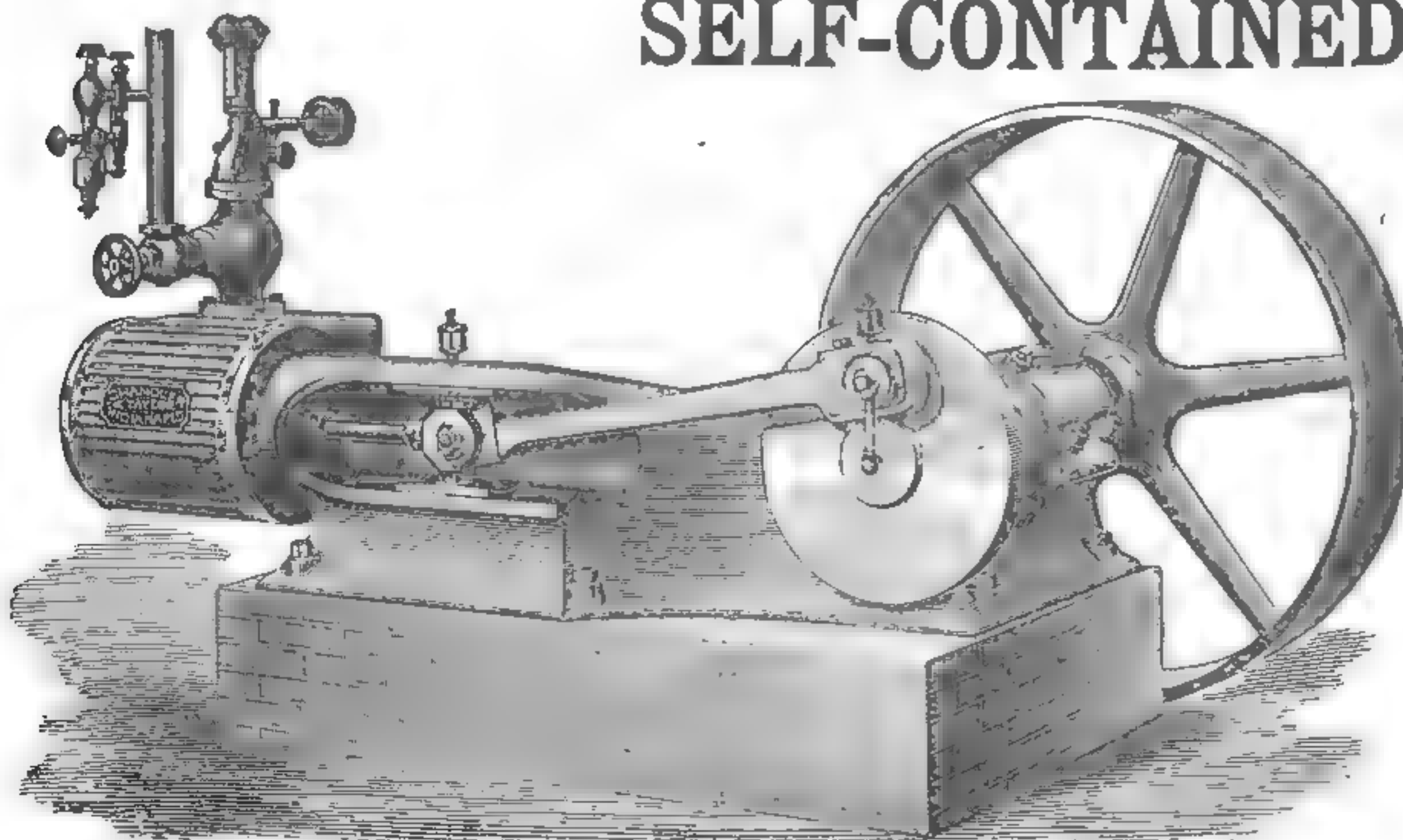
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**SELF-CONTAINED STEAM ENGINES**

Stationary or

Semi-Portable.

High Standard Maintained.
Prices Greatly Reduced.WRITE FOR NEW ILLUSTRATED
CATALOGUE NO. 32.**Chandler & Taylor Co.****Indianapolis, Ind.**Engines, Saw-Mills and Drain Tile
Machinery a Specialty.

NOTES & NEWS

W. L. Rose, Coleman, Tex., builds a grist-mill.
 W. W. Hopkins' grist-mill, Loganville, Ga., burned.
 Whitener & Smyers, millers, Whitener, Ark., assigned.
 J. W. Evans & Co.'s grist-mill, Summersville, Ga., burned.
 B. O. Bird, Conway, Ky., will rebuild his burned grist-mill and wants machinery.

The Gladstone grist-mill, Winnipeg, Manitoba, Can., burned with all its contents.

J. L. Divine, King's Point, Tenn., has improved his flour-mill and added steam-power.

Childress, Tex., will receive a 250-barrel roller flouring-mill, to be built by East Texas capitalists.

The West Indianapolis Hominy Mills, Indianapolis, Ind., burned; loss \$75,000; insurance \$40,000.

The Farmers' Alliance of Monroe county, Tenn., will build a 200-barrel roller flouring-mill at Loudon, Tenn.

McKinzie & Hackney Bros., Maryville, Tenn., have bought the Walker Flour Mill and will soon remodel it to rolls.

The Secretary of the Board of Trade, Fort Worth, Tex., has points on a projected 1,000,000-bushel grain-elevator at that place.

F. M. Asbury, Morganton, N. C., has points on a flour-mill to be built next spring by the Farmers' Alliance. Machinery is wanted.

The North Texas Grain, Milling & Elevator Co., Fort Worth, Tex., will buy mills and elevators at Waco, Fort Worth and other places.

"A secret meeting of the millers doing business in and about St. Louis was held on December 28th, to decide upon a scheme of consolidation. There are 19 mills controlled in St. Louis, and the estimated value is \$3,000,000. The proposition is in the form of a joint stock company and is now under consideration by all the millers. If the plan is adopted it will have a great effect on the Southern and Southwestern flour trade. Competition will be removed and prices fixed by the trust." The above statement has gone the rounds of the press, and it is ridiculous in its palaver about competition and prices.

A Milwaukee, Wis., dispatch of January 10 says: At a meeting here yesterday afternoon the seven great flour-mills formed a combination involving \$5,000,000 capital and an annual output of nearly 1,500,000 barrels of flour. This move will effectually shut out the English syndicates who have been dickering for the mills. The combination is made to meet the threatened competition of English capitalists, who have secured the Minneapolis mills. The theory of the Englishmen is that one gigantic concern can freeze out and crush a number of smaller concerns which are not united. Not wishing to sell, the Milwaukee millers decided to combine on the English basis.

Says a Chicago paper: "Some people seem to be horrified when they hear of corn being used for fuel," said Frank C. Walker, of Manhattan, Kan., who was at the Tremont House. "Now, if corn is cheaper than coal, what possible objection can there be to using it for fuel? A Kansas farmer can get 13 cents for a bushel of corn. Let us see, that is \$3.70 for a ton. To get that he may have to haul his corn 6 or 8 miles to market. If he buys coal he will pay from \$4 to \$5 a ton and haul it the 6 or 8 miles back home. The matter simply comes down to the question of how he can get the most effective fuel for a dollar. You could hardly expect a farmer to pay a bonus in order that he might burn coal if he could get the heat some other way. Corn at \$3.70 a ton is cheaper fuel than coal at \$5 a ton, and, besides, it has in its favor the fact that the farmer has the corn at home. There is no more reason for a sentimental objection to burning corn than there is to burning wood."

According to a Chicago dispatch of January 9, the members of the Board of Trade of that city are seriously asking themselves if it is true

that "Old Hutch" of the wheat, corn, oats and provision pits is intent on carrying out his threat, made some time ago, that he would break up the Board of Trade. Business is alarmingly dull, and the great outside public is keeping away from the Board, not caring to trade in a market that is dominated entirely by one man. The sentiment toward the old man as a consequence is openly hostile, and he is gayed unmercifully whenever he appears in the various pits. However, no one refuses to trade with him and he continues monarch of the Board. "Old Hutch" started in about the first of December to trade in May wheat and for the past 35 years he has held the market here and in New York and St. Louis in the hollow of his hand. He wants to show that he is master here and no one can deny that the demonstration is perfect. The business on the board now, comparatively speaking, amounts to little or nothing, but Hutchinson makes money right along.

The Minneapolis *Market Record* estimates that there are 30,000,000 bushels of wheat remaining in farmers' hands in Minnesota and the Dakotas, of which 10,000,000 bushels is surplus, the remainder being needed at home for food and seed. The quantity now "in sight" is 24,754,000 bushels, to which add 10,000,000 bushels yet supposedly in reserve, and there are 34,754,000 bushels to supply requirements until next Sept 1. The requirements of the Minneapolis and interior mills are placed at 24,000,000 bushels. Duluth's 4,400,000 bushels will go east, and only 5,600,000 bushels remain for shipment out of the country in unground form. The *Record* then adds: The amount so far taken from the crop includes approximately 43,000,000 bushels to Minneapolis, Duluth and St. Paul, some 8,000,000 bushels as wheat and flour not controlled in such stocks, and 10,000,000 bushels now in country elevators, making 61,000,000 bushels moved from the farm. If the 10,000,000 bushels estimate, of the amount of surplus farmers have yet to sell, is correct, then the crop was approximately 91,000,000 bushels for the bread and seed reserve takes out some 20,000,000 bushels, or there will be some 5,000,000 bushels of shortage. The shortage theory is insisted upon by people having excellent opportunities of judging it, while there are others quite as competent that claim an average, the latter putting the total crop at near 100,000,000 bushels. The plainest evidence, however, seem to indicate a crop of about 95,000,000 bushels, with requirements for the season covering as much.

The December report of the Department of Agriculture contains a detailed statement of the estimates of principal cereals by States, including area, product and value. The reported area of corn, 78,319,651 acres, represents an increase of 2 1/4 per cent. over the acreage of 1888. The wheat acreage, 38,123,859 acres, is 2 1 per cent. greater than the aggregate for 1888. The revision of acreage gives a smaller area in Iowa, Nebraska, Oregon and Washington and a larger breadth in Kansas and Dakota. Dairying and meat production have for years been encroaching on wheat growing on the eastern side of the great spring-wheat belt. Wide fluctuations in breadth of wheat in Kansas, Illinois and other states occurring from year to year are the results of variable meteorological conditions. Economic considerations, especially changes in market value, also affect peculiarly the distribution of wheat. The acreage of oats is placed at 27,462,316 acres, an increase of less than 2 per cent. The yield per acre of corn is very nearly 27 bushels, or one and one-tenth bushel less than the product of 1879, and is the largest rate of yield since 1880. The product as estimated is 2,112,892,000 bushels. The largest yields are west of the Mississippi, Iowa taking first rank in aggregate, produced and yield per acre, 349,966,000 bushels, 39 5 per acre. The yield per acre of wheat is nearly 12.9 bushels, or one-tenth of a bushel greater than the November average or yield per acre. The variation from the current expectation of the last six months is not over 1 per cent. The total product, as estimated, is 390,560,000 bushels. The product of oats is 751,515,000 bushels, at the rate of 27.4 bushels per acre. The aggregate of all cereals is about 3,450,000,000 bushels, or at least 53 bushels per capita.

Among the recent favors sent out by the Avery Stamping Co., of Cleveland, O., is a neat nickel-plated sample of the new Caldwell corrugated bucket. Any miller or mill-furnisher desiring specimens of these buckets can obtain them by sending their address to the manufacturers.



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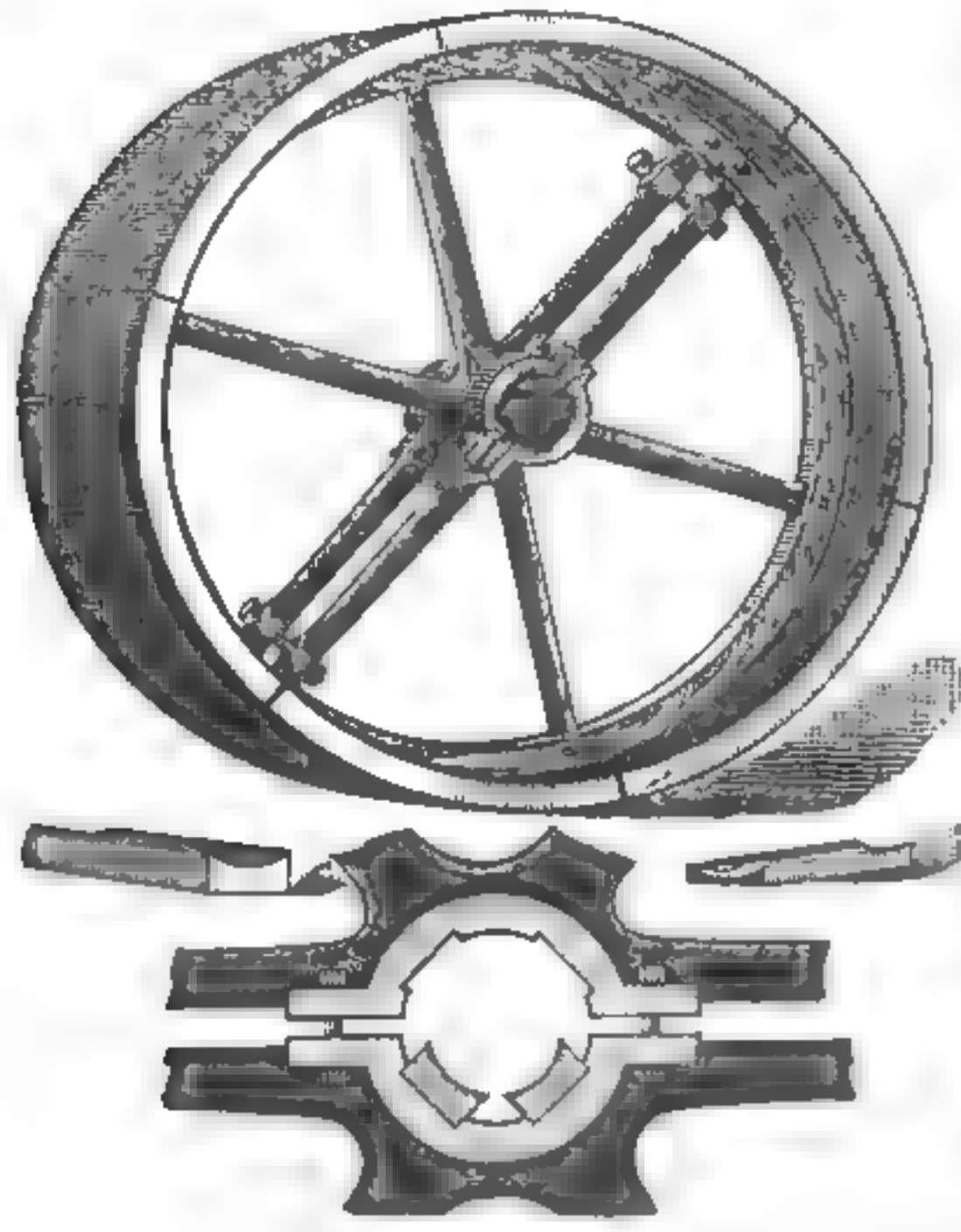
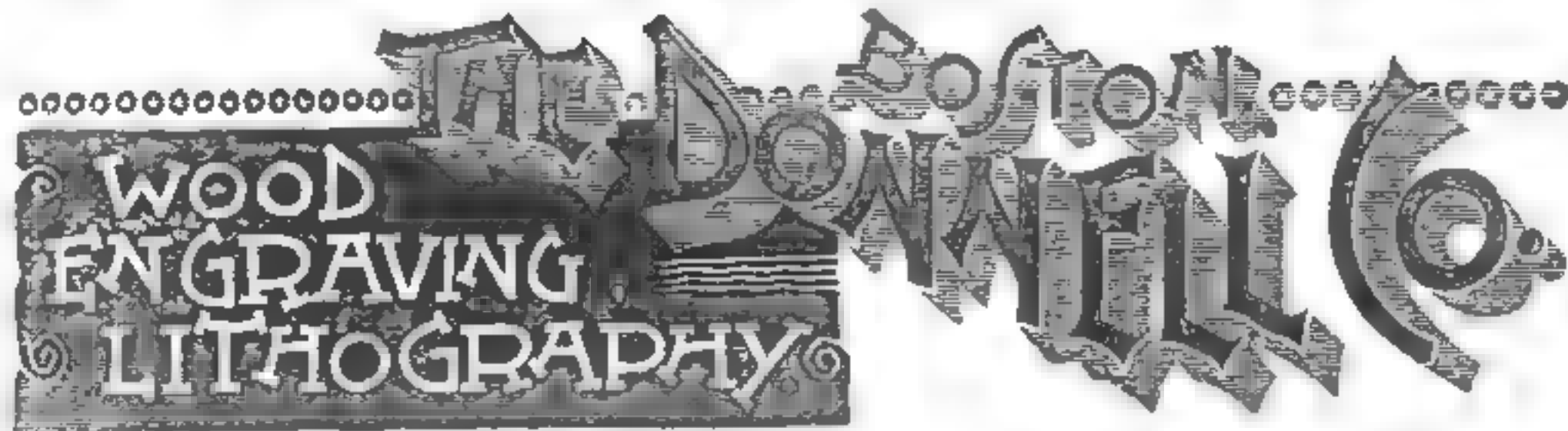


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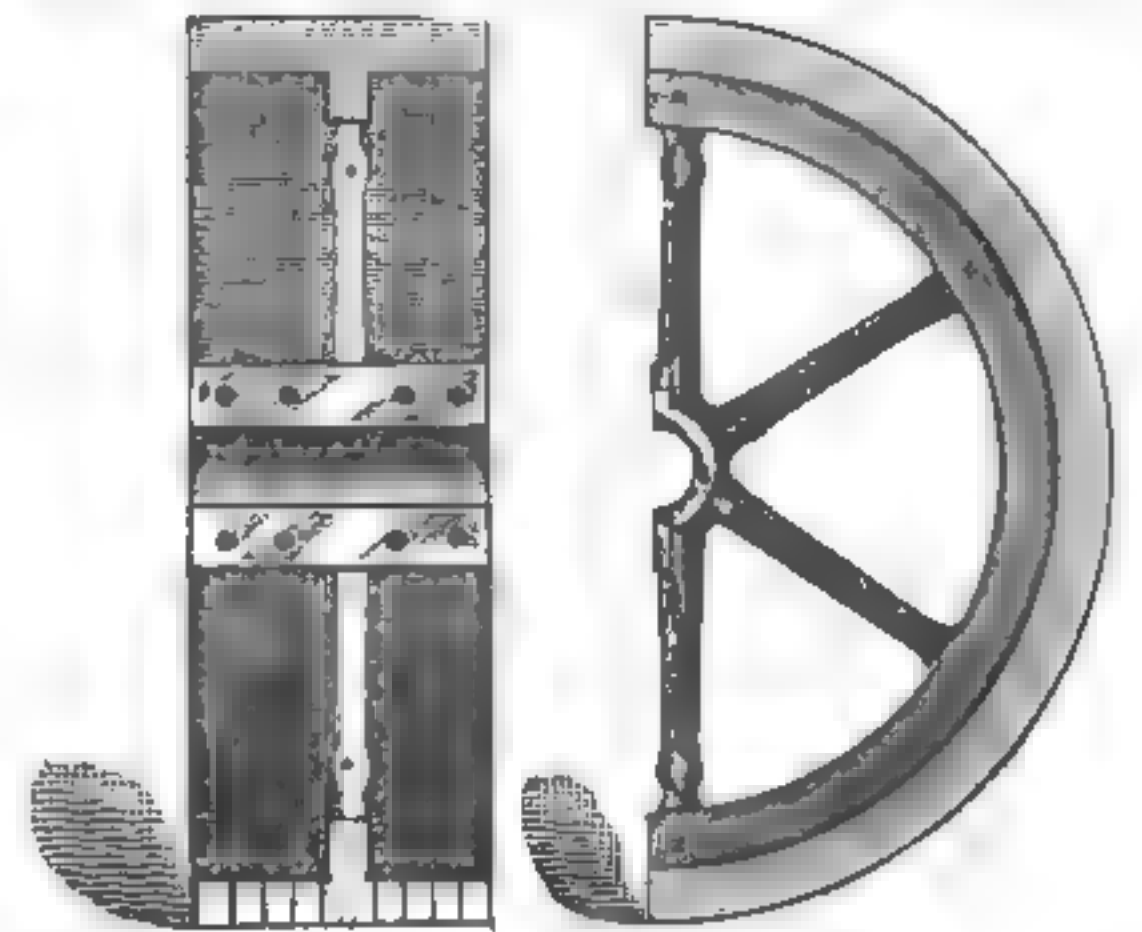
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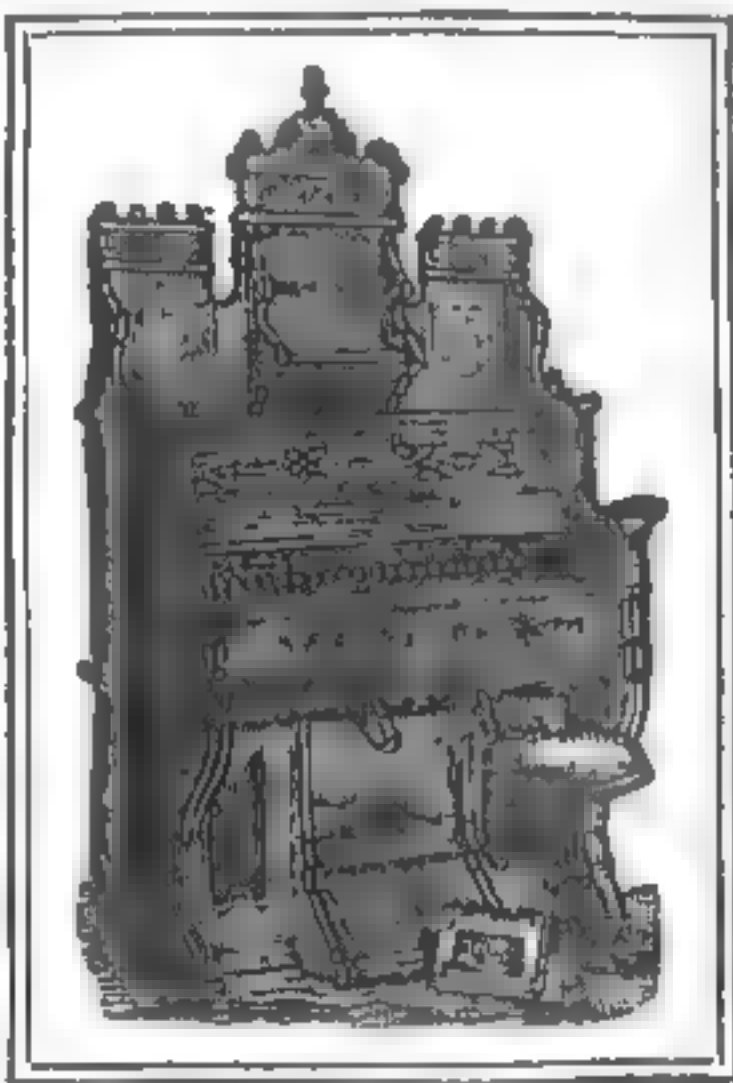
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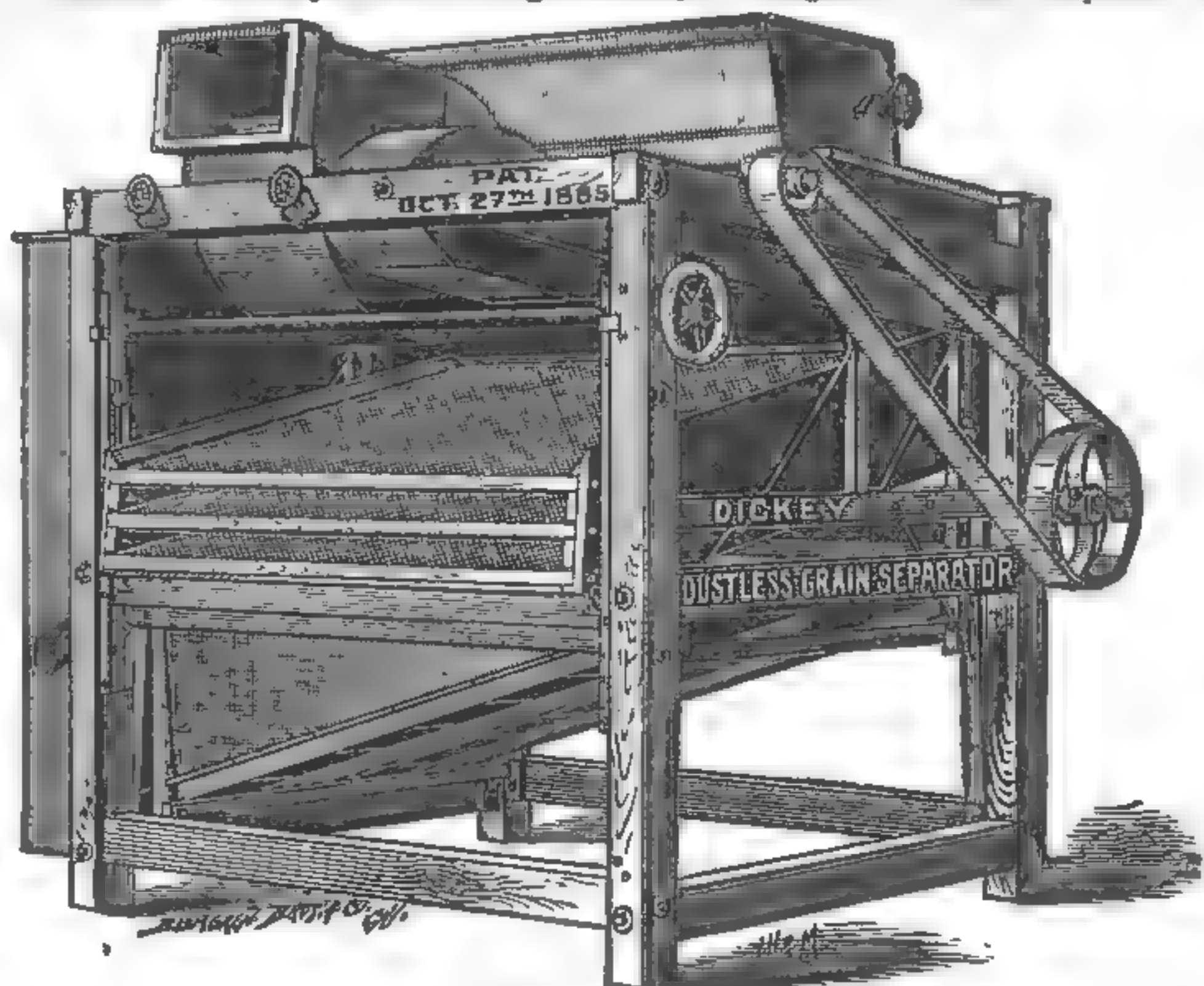
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EUROPEAN ECHOES.

INDIA raises one bushel of wheat per head of her population, the United States over 7 bushels per head, and South Australia 19 bushels.

EUROPEAN reports indicate that reserves of wheat are small, and that they are being freely drawn upon. Importations rule small in the leading countries.

AT a recent meeting of operative millers held in Berlin it was stated that in the mills of Germany the hours of labor ranged from 12 to 18 hours a day, Sundays included. The wages of the millers were alleged to be low.

RUSSIA exported during the first 45 weeks of the past year 86,400,307 bushels of wheat, 38,641,254 of rye and 10,152,886 of corn, against 100,005,834 bushels of wheat, 56,807,741 of rye, and 9,905,688 of corn for the same period of 1888, and 59,078,175 bushels of wheat, 42,583,755 of rye and 15,707,208 of corn for the first 45 weeks of 1887.

AN English exchange says: "The crop reports from the Argentine Republic are, so far, very favorable, but it would be useless to speculate upon what the extent of the surplus may be. The South Australian crop is, according to some correspondents, not turning out so well as was expected, and sellers are much more shy in their offers."

GERMAN statisticians estimate that Germany will have to import during the cereal year 1889-'90 about 375,000,000 bushels of rye. The recent purchases from Russia are of little importance. The small offers of home-grown rye at Berlin have been completely taken from the market by the requirements of provincial millers and the demand of the government commissariat.

THE financial results of milling in Hungary during 1889 it is said will not turn out very satisfactory. Two or three of the Budapest mills it is reported will not be able to pay any dividend to their shareholders. Reports from Hungary say that should the price of wheat remain the same, the constant fall of the course of exchange will oblige the flour-mills to raise their quotations for abroad and buyers on the lookout for lower Hungarian flour prices will be disappointed.

SAYS the London "Miller" of December 23, 1889: In comparing current prices over the world, quotations are found to be in Holland and England for wheat between 30s. and 31s. for average, against 39s. 8d. in Paris, 42s. 4d. in Berlin, while the ordinarily good milling wheat is 3s. to 4s. per quarter higher, 35s. to 36s. being wanted for Australian and Californian cargoes. The price of rye in Germany keeps abnormally high, and good malting barley is almost everywhere worth more per quarter than wheat. At what cost to the nation were the produce statistics obtained? they give for the United Kingdom and Ireland a harvest result for wheat of 9,358,376 quarters, a quantity so very close to the "Miller" estimates three months ago that, if official inquiries cost but £1,000, it may be suggested that the work once in five years would be often enough. Commerce can not wait

three months to learn on what basis to form its bargains, rather being prospective and not retrospective. Official forecasts such as those of the Government in America would be of more use to the wheat trade than simple endorsement of what private information has acquired at harvest time. Russia continues to put up prices and asks generally about 1s. per quarter over the rates of a fortnight ago. 34s. to 36s. is the range now for good qualities. The Continent is taking wheat and maize freely from America. India keeps reserved in selling, but seems disposed to accept present rates for what can be spared. Australia has now entered our markets this season as a competitive seller at about 35s. 6d. per 480 pounds, a level which should make quotations in Mark Lane 36s. to 37s. per 496 pounds.

WE ARE GROWING WEALTHY.

According to a recent compilation of figures, obtained from the treasurer of each state in the Union, showing the value of property assessed for taxation, the wealth of the United States is growing with startling rapidity. The Census Office in 1886 made a report of its exhaustive and laborious inquiry into the proportions existing in each state between taxed property and actual wealth, which ranges between 25 per cent. in Illinois and 68 in Wyoming. The recent report shows an increase on taxable property of \$6,963,000,000 and an increase of actual wealth of \$18,162,000,000 since 1880. The total wealth is \$61,459,000,000, exclusive of public property, and \$3,093,000,000 property invested and owned abroad. The assessed value of taxed property and our actual wealth at different decades have been:

	Assessed Value.	Actual Wealth.
1850.....	\$5,287,616,148	\$13,652,499,737
1860.....	12,084,500,005	31,201,310,676
1870.....	11,342,789,366	30,068,518,507
1880.....	16,902,993,543	43,642,000,000
1889.....	23,719,000,000	61,459,000,000

The wealth of the United States now exceeds the total wealth of the whole world at any time previous to the middle of the 18th century, and the amount invested abroad is alone equal to the national wealth of Portugal and Denmark. The total wealth of only five nations is equal to the mere increase of the United States in the past nine years. The assessed valuation of property in New York state in 1880 was \$2,652,000,000; in 1889 it was \$3,567,000,000. The true valuation in 1880 was \$7,619,000,000; in 1889 it was \$10,247,000,000.

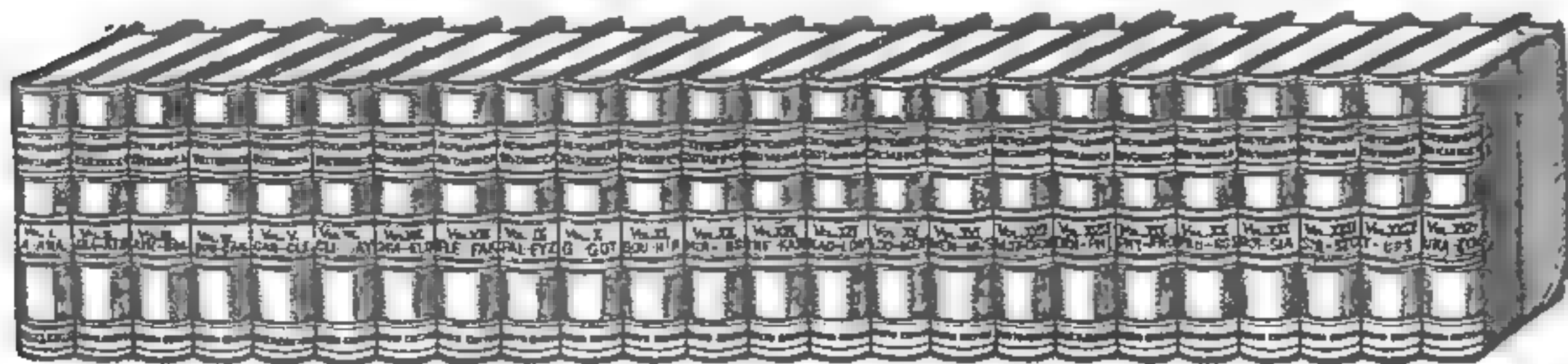
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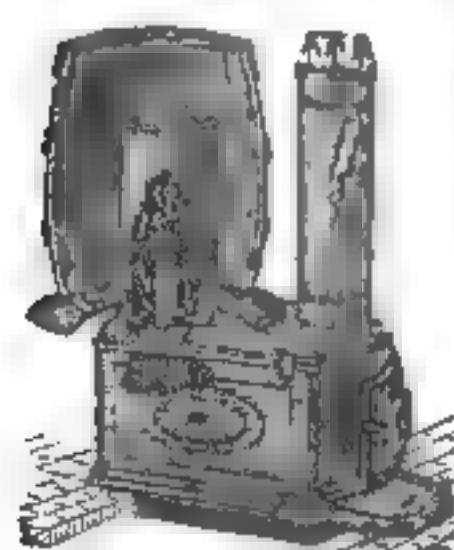
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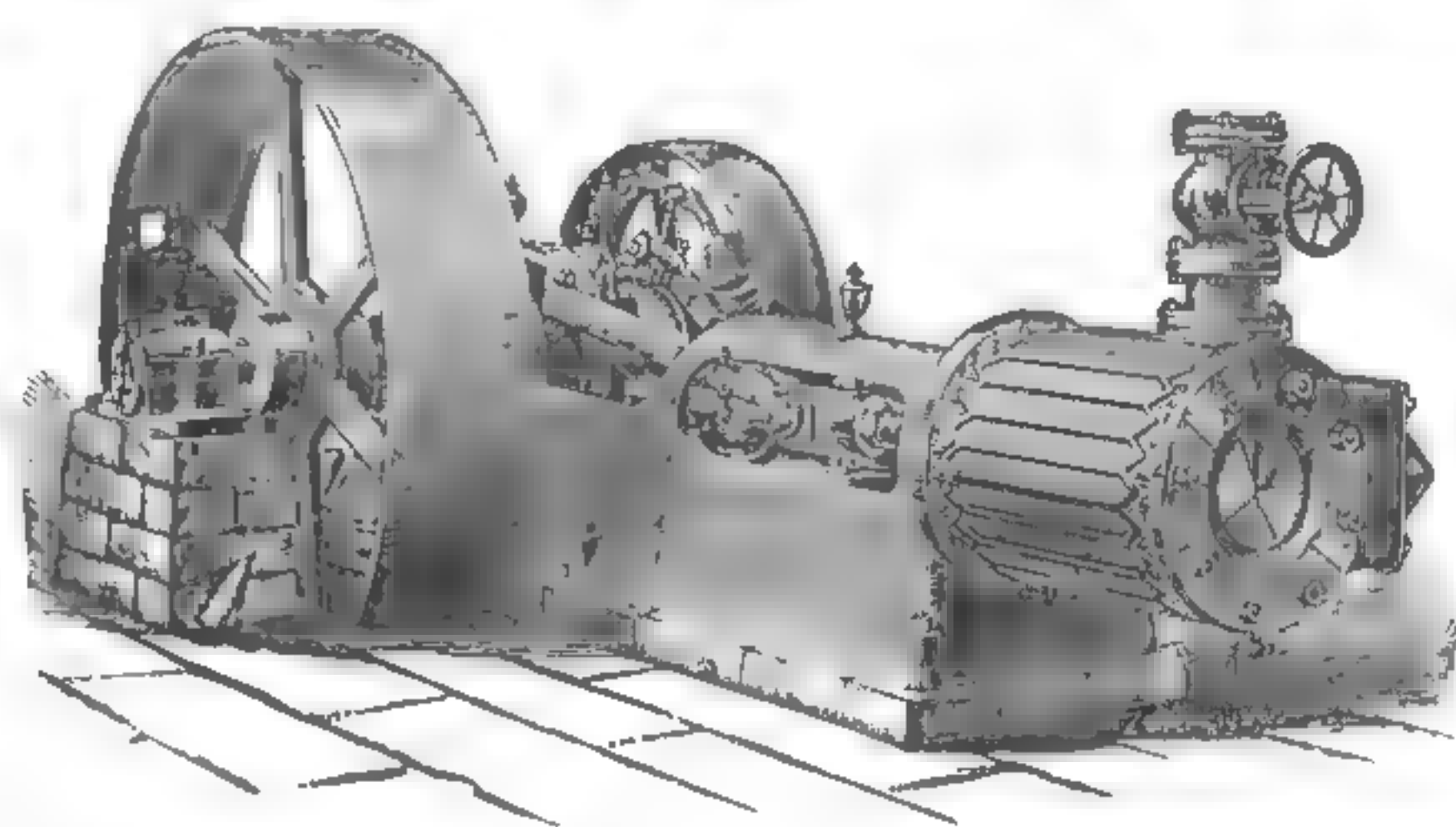
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OFFICE OF THE MILLING WORLD,
BUFFALO, N. Y., Jan. 11, 1890.

Friday of last week was a day of lighter receipts, stronger cables, light stocks, good legitimate demand at home and abroad, and consequently stronger markets. In New York January wheat closed at 85½c., with Atlantic port receipts 19,674, exports 131,647, and options 1,240,000 bushels. January corn closed at 39½c., with receipts 532,168, exports 141,597, and options 1,800,000 bushels. January oats closed at 28½c., with receipts 127,418, exports 43,232, and options 355,000 bushels. Wheat flour was firmer and generally held 5@10c. over prices of the past week. Receipts were 18,421 sacks and 41,435 barrels, and exports 4,888 sacks and 16,063 barrels. The other lines were featureless.

Saturday brought dull and easy markets, on the Government report of larger crops, on fairly large receipts and on duller cables. January wheat closed at 85½c., with receipts 26,366, exports 84,680, and options 600,000 bushels. The interior receipts of wheat for the week were 1,105,000 bushels, against 1,448,000 the preceding week and 707,000 bushels a year ago. The wheat crop of 1889 is now estimated at 490,000,000 bushels. "Old Hutch" in Chicago is said to be a "big bear" at present. January corn closed at 39½c., with receipts 396,594, exports 169,540, and options 656,000 bushels. The Government report made the crop 80,000,000 bushels larger than the estimate of a month ago. January oats closed at 28½c., with receipts 119,903, exports 42,631, and options 275,000 bushels. Wheat flour was stronger on spring patents, and trade was fair, with receipts 33,675 barrels, and exports 32,212 sacks and 28,757 barrels. The other lines were featureless.

Monday opened a new week with duller and lower markets on larger receipts and hammering by the Chicago bears, led by "Old Hutch," or as the Chicago papers now call him, "Mr. Benjamin Peters Hutchinson." January wheat closed at 85½c., with receipts 22,875, exports 51,661, and options 776,000 bushels. January corn closed at 39½c., with receipts 521,923, and exports 325,156 bushels. January oats closed at 28½c., with receipts 263,622, exports 69,439, and options 355,000 bushels. Wheat flour was duller, but firm, with receipts 6,622 sacks and 32,993 barrels, and exports 20,801 sacks and 34,665 barrels. The minor lines were quiet and featureless. The visible supply in the United States and Canada was:

	1890. Jan. 4.	1889. Jan. 5.	1888. Jan. 7.
Wheat	33,750,004	37,923,374	43,857,126
Corn	9,289,352	10,141,000	6,184,914
Oats	5,121,051	8,621,454	5,896,187
Rye	1,228,926	1,666,174	300,658
Barley	2,385,117	2,770,014	3,328,203

Tuesday brought lower and weaker grain markets all around, on continued western selling. January wheat closed at 85½c., with receipts 20,615, exports 83,522, and options 1,100,000 bushels. January corn closed at 38½c., with receipts 524,503, exports 172,291, and options 2,300,000 bushels. January oats closed at 28½c., with receipts 165,699, exports 13,267, and options 85,000 bushels. Wheat flour was generally dull and unchanged, with exporters 10c. under the New York market. Receipts were 17,969 sacks and 31,617 barrels, and exports 8,123 sacks and 7,747 barrels. The minor lines were featureless through the day.

The following shows the amount of wheat and flour, together with the amount of corn on passage to United Kingdom, for ports of call or direct ports for the weeks mentioned:

	1890. Jan. 7.	1889. Jan. 9.
Wheat and flour, qrs....	2,071,000	2,275,000
Corn, qrs.....	354,000	233,000

The following shows the amount of wheat

and corn on passage to the Continent for the past week and for the same week last year:

	1890. Jan. 7.	1889. Jan. 9.
Wheat, qrs.....	390,000	402,000
Corn, qrs.....	256,000	89,000
Shipments India wheat to U. K.....		37,500
do do Continent..		37,500

The imports into the United Kingdom for the past week and for the same weeks in previous years were as follows:

	1890. Jan. 7.	1889. Jan. 9.	1888. Jan. 10.
Wheat, qrs.....	238,000	285,000	208,000
Corn, qrs.....	90,000	108,000	114,000
Flour, bbls.....	318,000	140,000	234,000

Wednesday brought dull and weaker opening markets, on long selling, and higher closing markets, on covering by shorts and on lighter receipts. January wheat closed at 85½c., with receipts 27,090, exports 35,116, and options 1,100,000 bushels. Exporters had orders, but they could not get freight room and would not buy ahead. January corn closed at 38½c., with receipts 441,459, and exports 705,704 bushels. January oats closed at 28½c., with receipts 114,944, and exports 119,050 bushels. Buckwheat grain was 34@44c. Rye was nominally as follows: 54@55c. on track for ungraded, 57@58c. afloat, 56@58c. for No. 2 Western afloat, 58@60c. for No. 1 State afloat and 57@59c. for Canada. Barley was dull and unchanged at reduced quotations. Twenty-thousand bushels two-rowed State sold at 51c. Quotations: Two-rowed Canada 59c; extra two-rowed 62@63c.; two-rowed State 51@52c.; six-rowed State 53@55c., and 50@60c. nominally for Western. Malt was nominally unchanged. Quotations: Country-made old 70@85c.; new do 80@85c.; two-rowed State old 67½@72½c.; new do 70@75c.; six-rowed old 67½@75c.; new do 75@80c.; Western old 45@72½c.; new do 55@80c. Mill feed was a little soft in spots again and 500 bags 80 lbs. sold at 57½c., though 60@62½c. is still asked as a rule by city mills; but some are filling up and the West is offering more freely both of spring and winter stock; \$13.40 in 200-lb. bags to outside trade was paid for 100 tons. Quotations: 55@65c. for both extremes for 40, 60 and 80 lb.; 75@80c. for 100-lb. and 70@75c. for rye.

Wheat flour was dull and generally unchanged, with no efforts making to force sales. Receipts included 12,493 sacks and 31,113 barrels, and exports 8,032 sacks and 8,145 barrels. The quotations were:

SPRING FLOUR.		
	Sacks.	Barrels.
No grade.....	\$1.55@1.65	\$....@....
Fine.....	1.80@2.05	1.95@2.20
Superfine.....	2.05@2.30	2.30@2.65
Extra No. 2.....	2.30@2.60	2.55@2.85
Extra No. 1.....	3.00@3.20	3.25@3.75
Clear.....	3.05@3.35	3.40@3.50
Straight.....	3.80@4.20	4.15@4.70
Patent.....	4.50@4.75	4.75@5.15

WINTER FLOUR.		
	Sacks.	Barrels.
No grade.....	\$1.70@2.00	\$....@....
Fine.....	2.00@2.10	2.10@2.40
Superfine.....	2.25@2.45	2.25@2.50
Extra No. 2.....	2.40@2.70	2.50@2.80
Extra No. 1.....	2.70@3.70	2.85@3.60
Clear.....	3.25@3.60	3.55@3.85
Straight.....	3.85@3.90	3.95@4.30
Patent.....	4.10@4.30	4.35@4.75

CITY MILLS.		
W. I. grades.....		4.30@4.40
Low grades.....		2.40@2.50
Patents.....		4.80@5.40

Rye flour was flat at \$3@3.25, with small sales, on account of the enforcement of the 5-day notice of removal from the railroad docks. Buckwheat flour was easier and more active, at \$1.50 per sack for choice. Corn products were quiet and unchanged, with slightly improved export demand. Quotations were: Coarse, in bags, city and country 76@81c.; fine yellow 91@95c., and fine white 83@96c. Western and Southern, in bbls. \$2.50@2.60, and Brandywine \$2.65.

Thursday brought no important changes in the market conditions. January wheat closed at 85c., with receipts 1,100, exports 73,948, spot sales 54,000, and options 912,000 bushels. January corn closed at 39½c., with receipts 175,200,

exports 210,671, spot sales 128,000, and options 1,048,000 bushels. January oats closed at 28½c., with receipts 84,000, spot sales 127,000, and options 305,000 bushels. Wheat flour was dull and easy, with very small business. The minor lines were featureless.

BUFFALO MARKETS.

WHEAT—Spring wheat remains firm at 91½c for No. 1 hard and 88½c for No. 1 Northern. Sales were made at these prices. No. 2 red winter is held at 85c. No. 2 white at 78@79c. and No. 1 white at 84c. The market is very quiet. CORN—Sales of 8 cars of light No. 3 corn on track were made to-day at 31c, and 4 cars of No. 4 on track at 30c. No. 2 corn is held at 34c. Corn is getting scarce here, and some say prices must go up soon. OATS—No. 2 white oats sold to-day at 27½c, and No. 2 mixed were quoted at 24½@25c. The market closed with No. 2 white held at 27½c and No. 2 mixed at 25@25½c. RYE—Quotations are nominal at 53c on track, but there is no trading here. BARLEY—There is no change to report. No. 1 Canada is held at 65c; No. 2 do at 58@60c, and No. 3 at 52@55c. Malt is slow of sale, hence there are few buyers for barley, and the trade is very dull. OATMEAL—Akron, \$6.00; Western, \$5.75 per bbl.; rolled oats, in cases, 72 lbs., \$3.25. CORNMEAL—Coarse, 80@85c; fine, 85@90c; granulated, \$1.50 per cwt. MILLFEED—City-ground coarse winter, \$11.00@11.50 per ton; fine do, \$11.00@11.50; finished winter middlings, \$13.00@14.50; coarse spring do, \$11.50@12.00.

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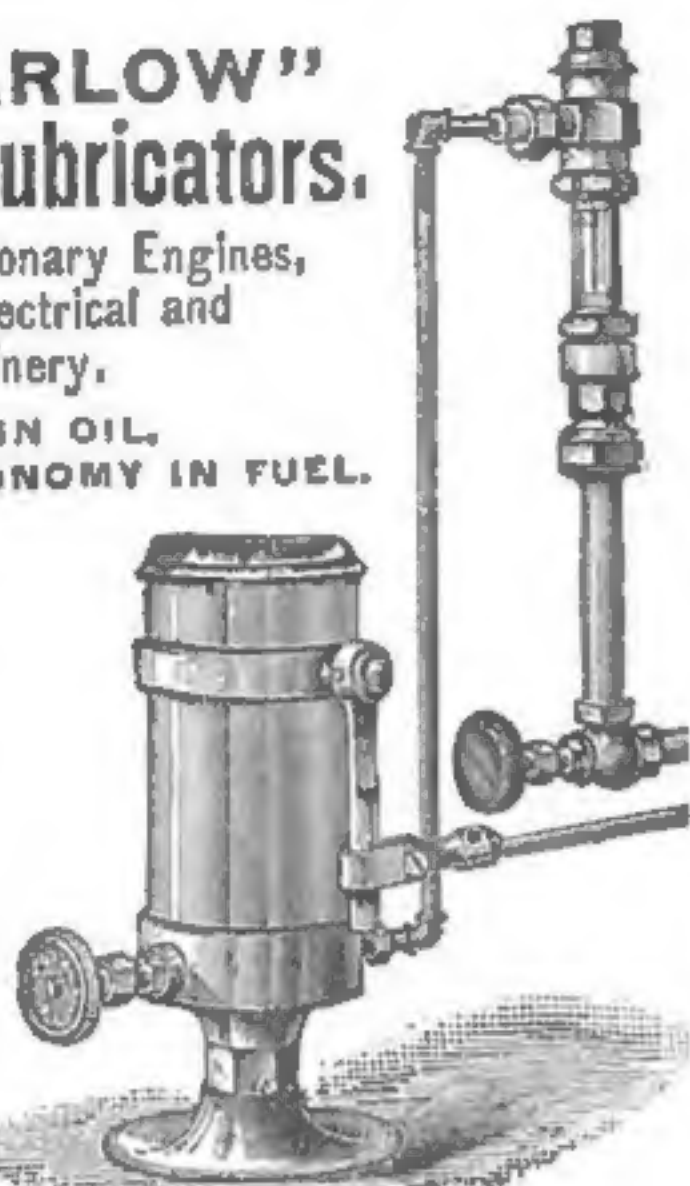
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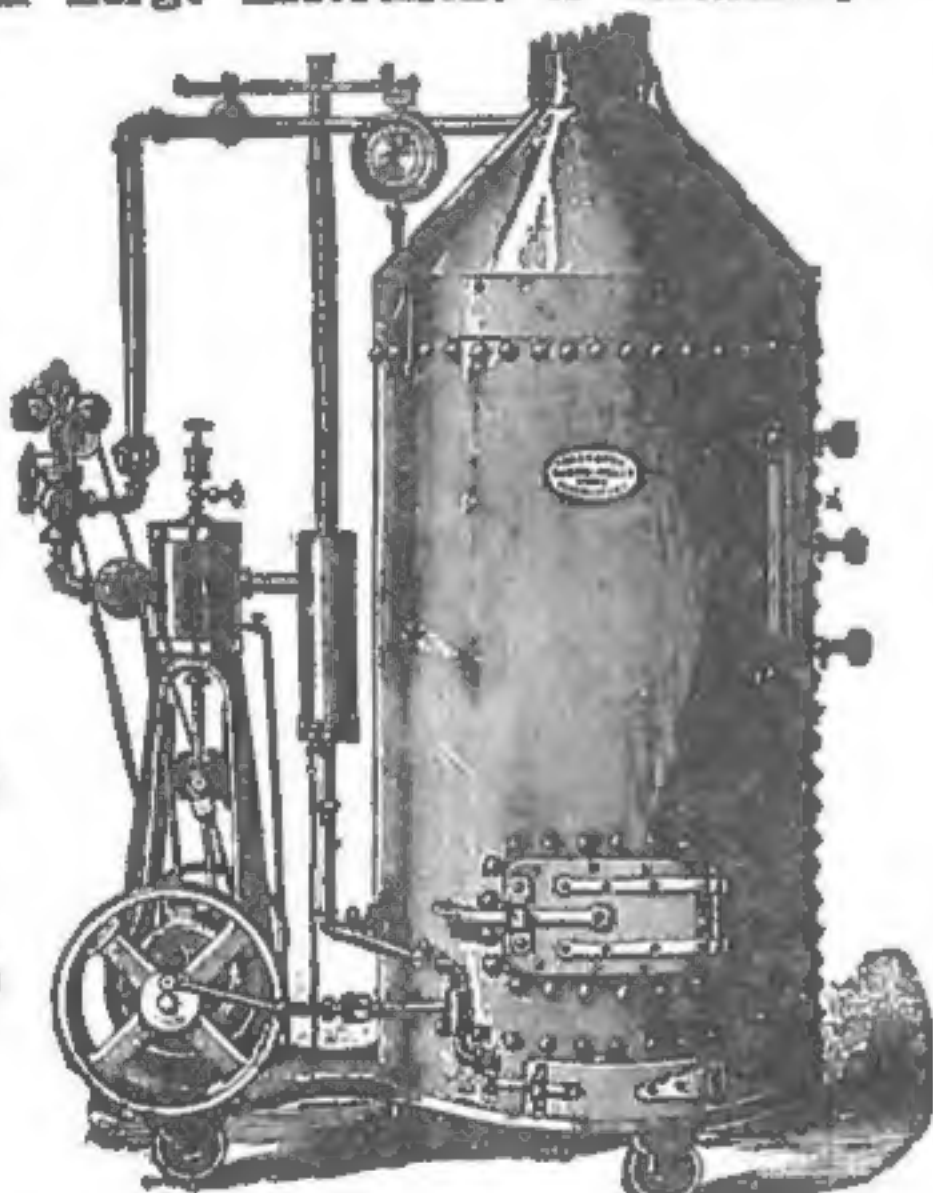
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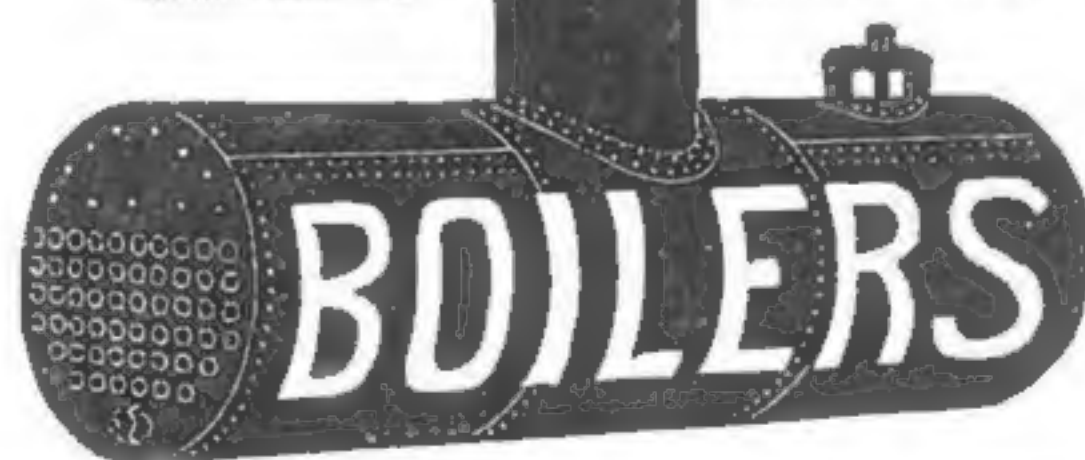
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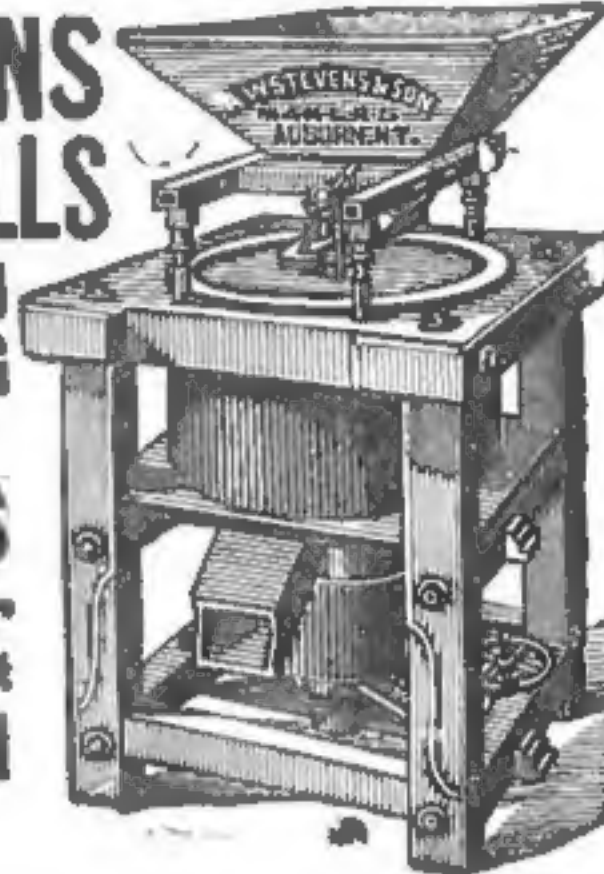
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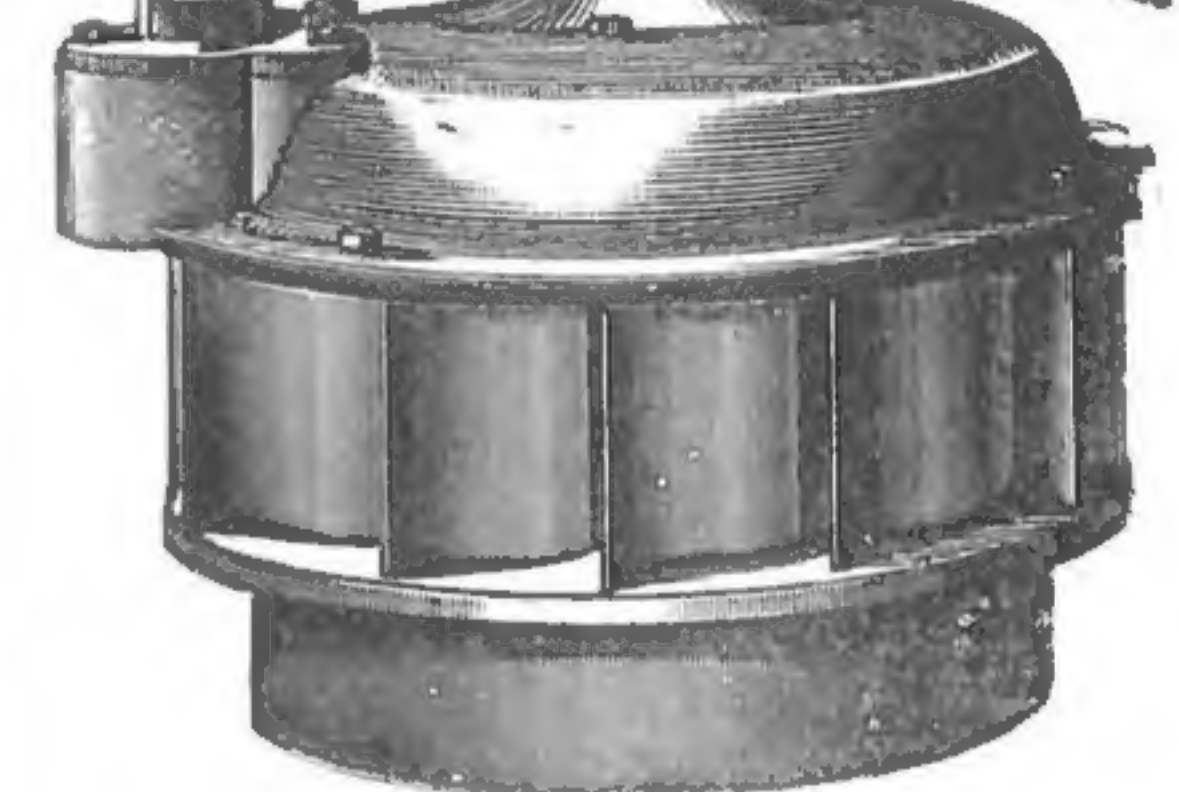
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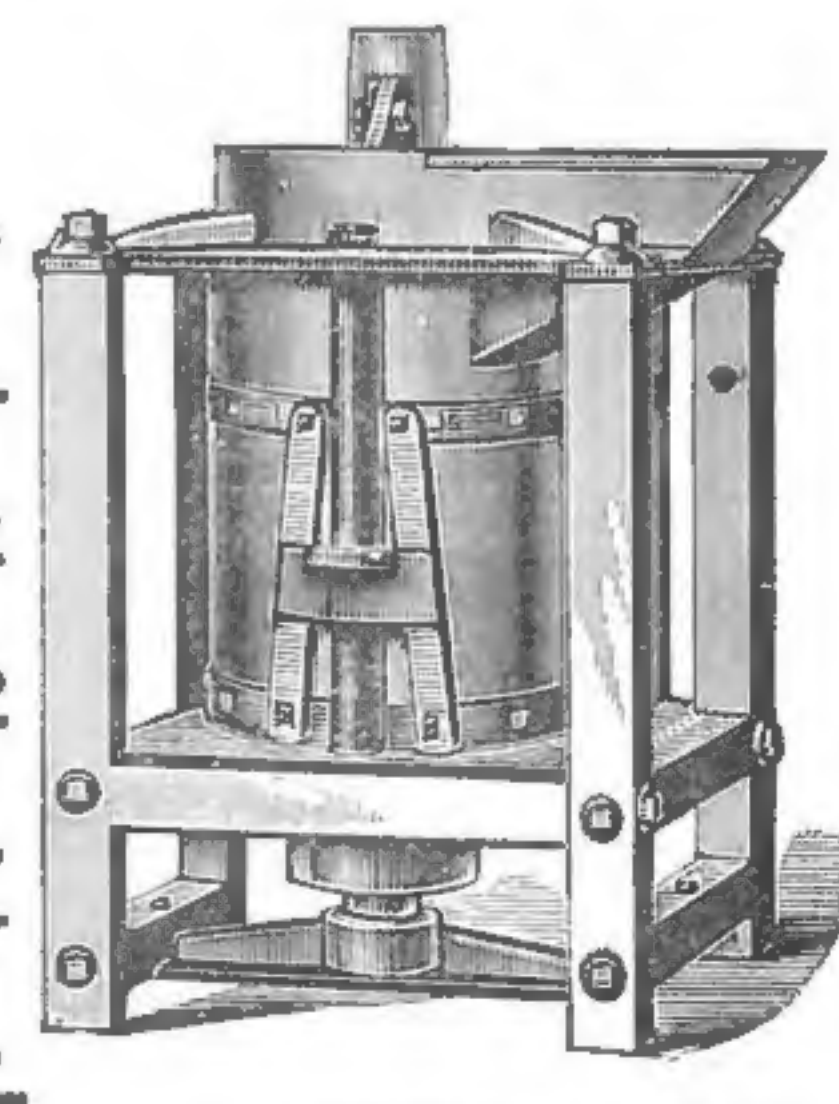
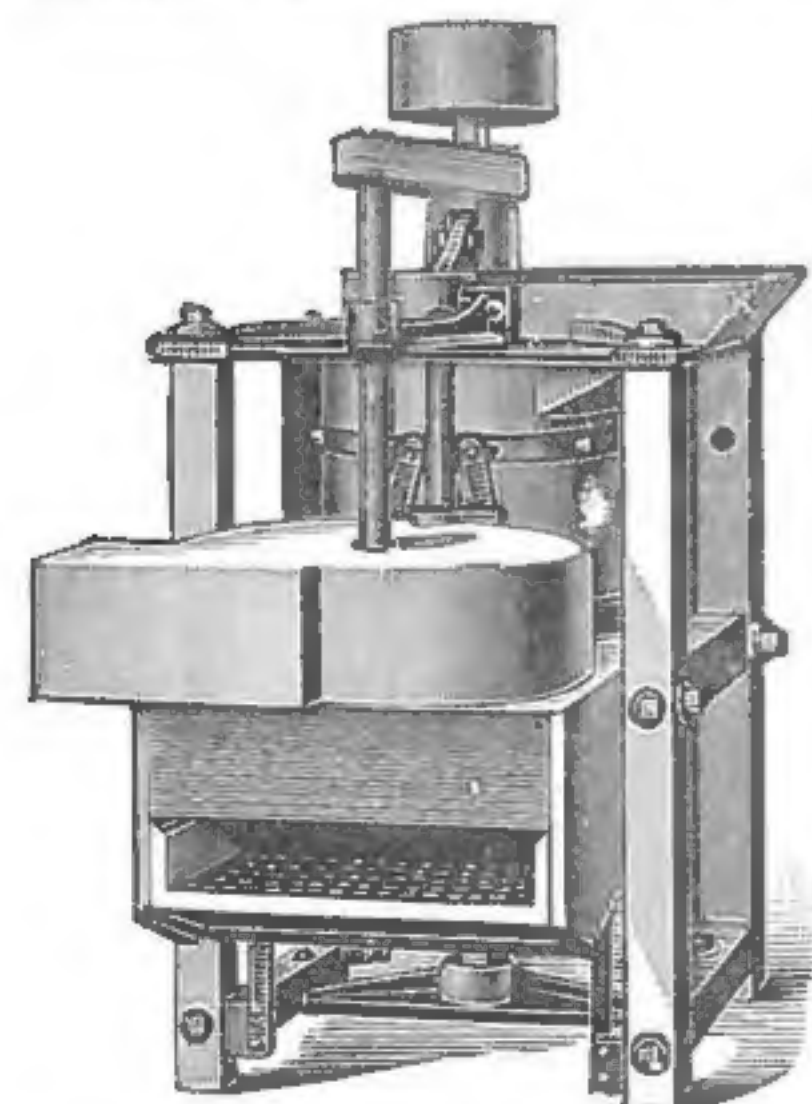
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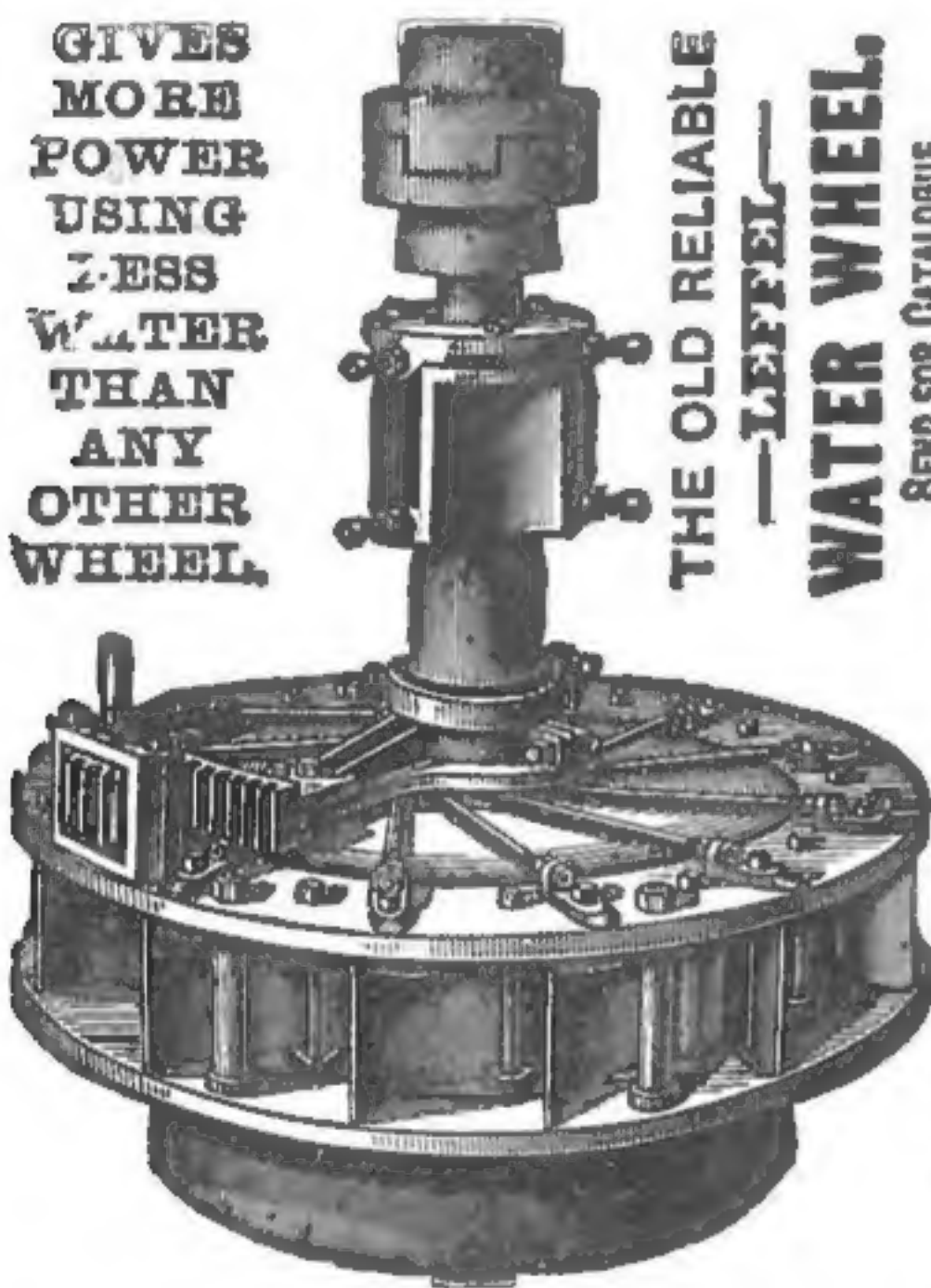
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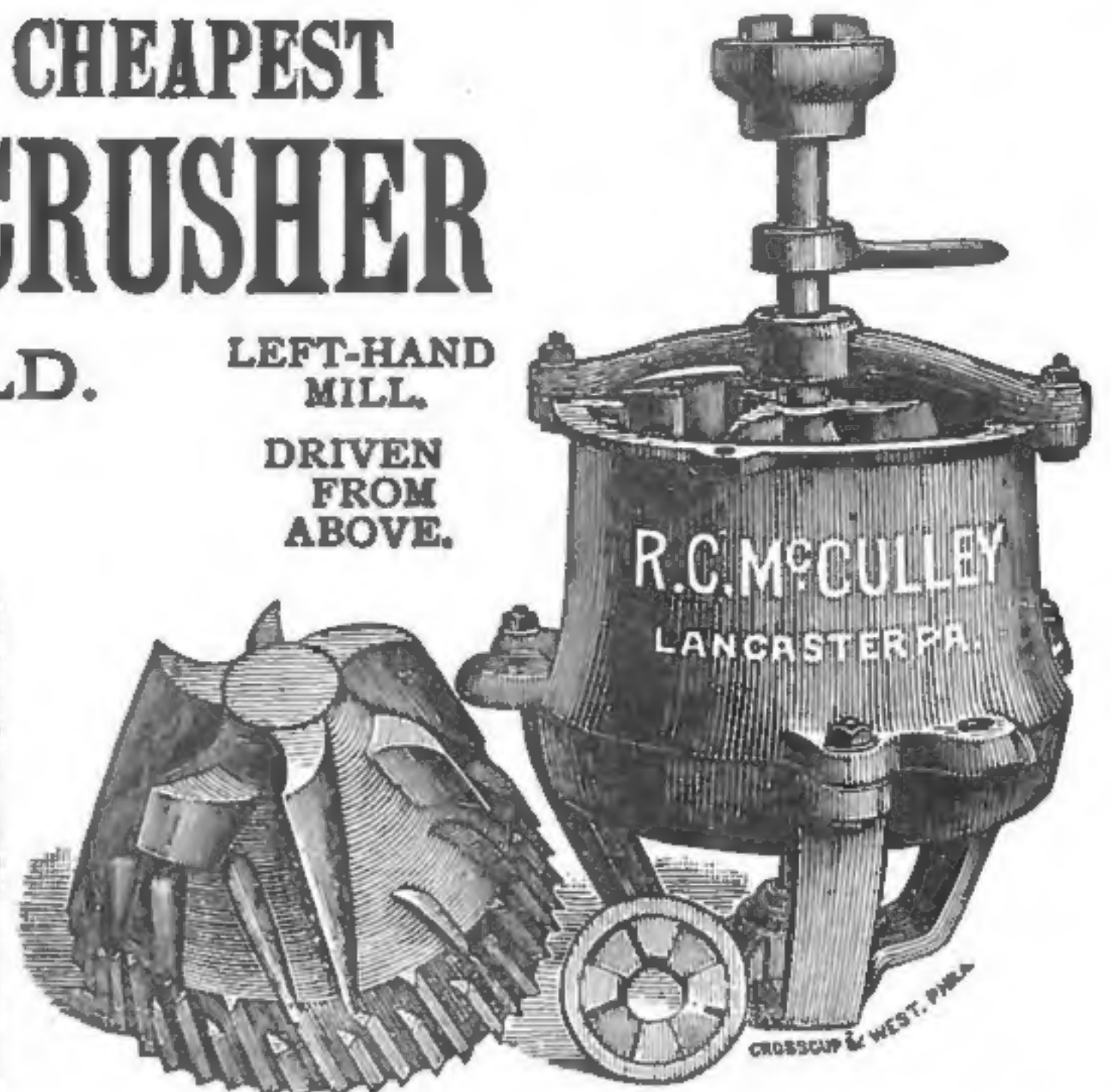
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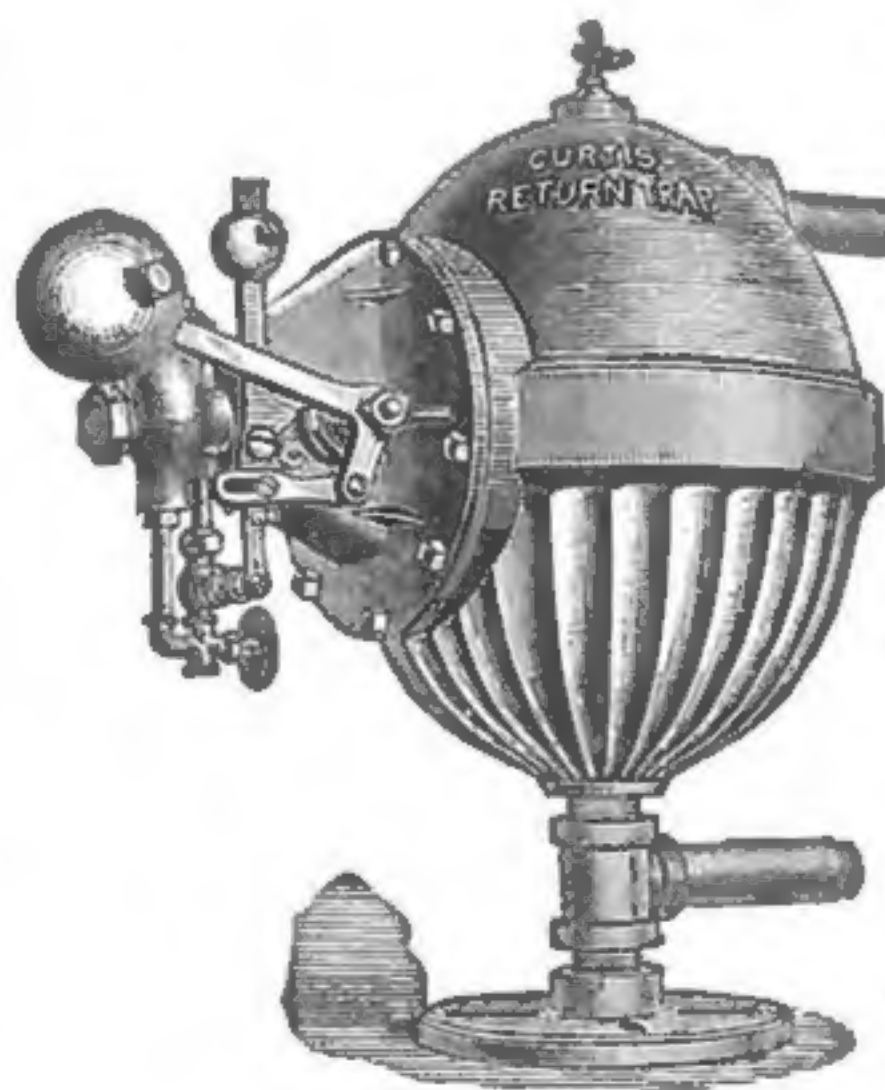
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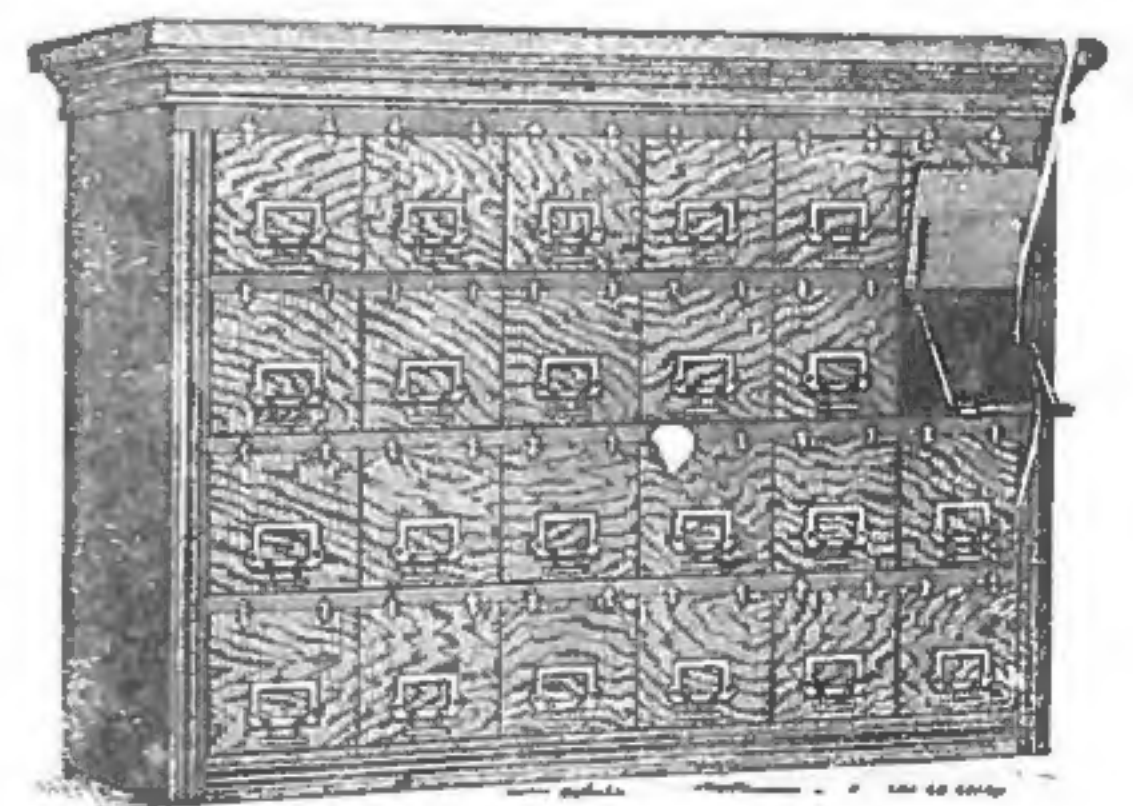
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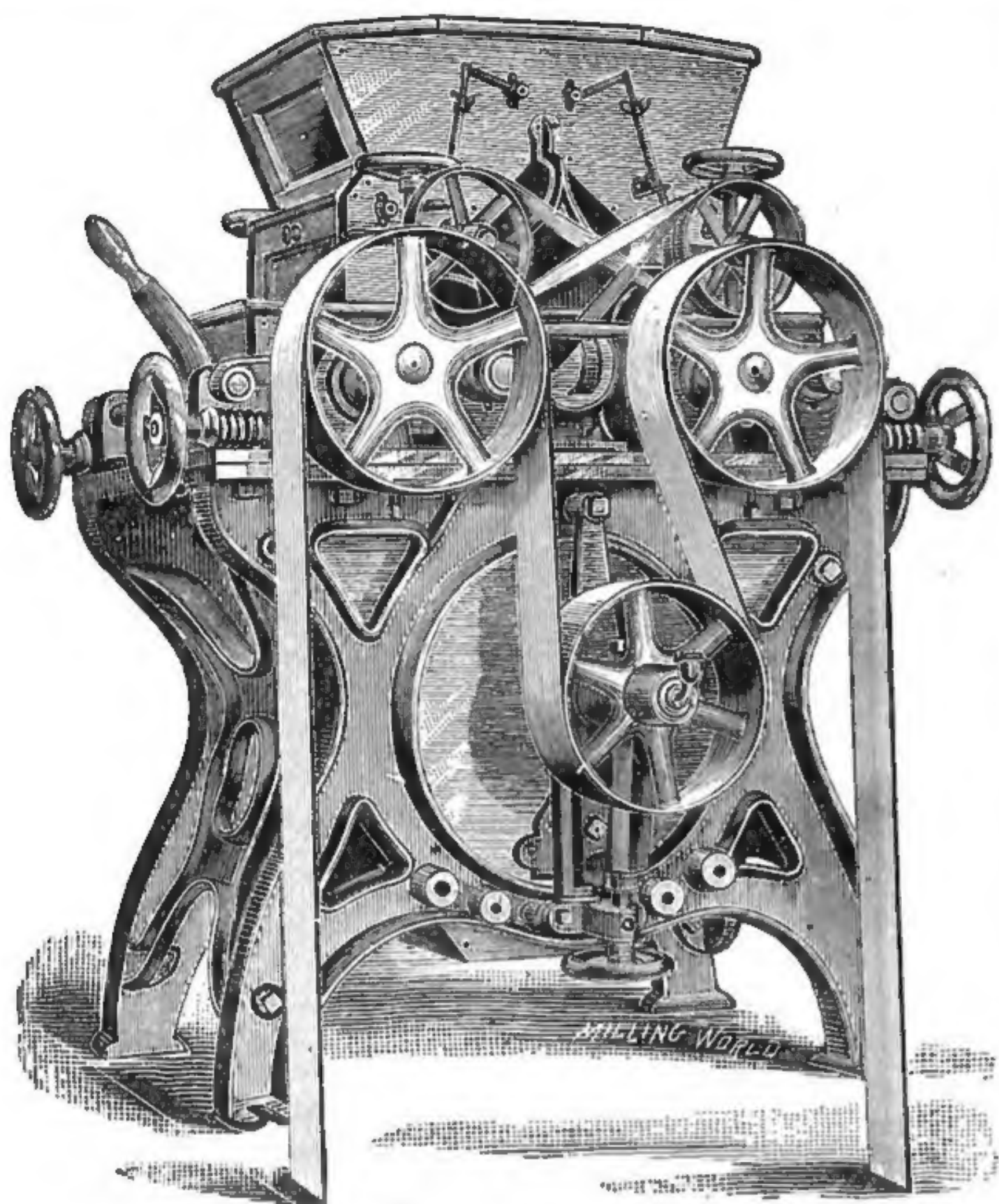


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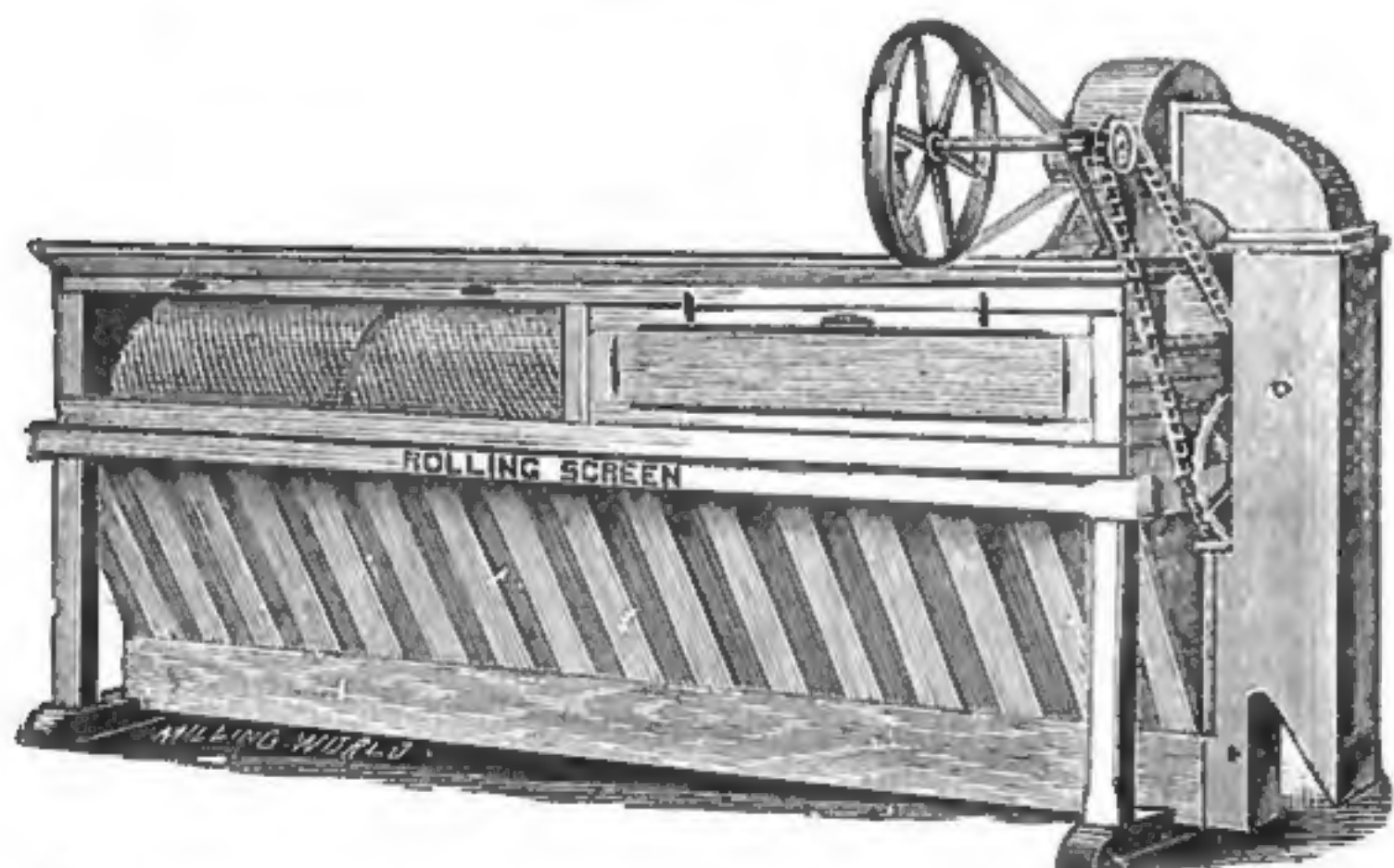
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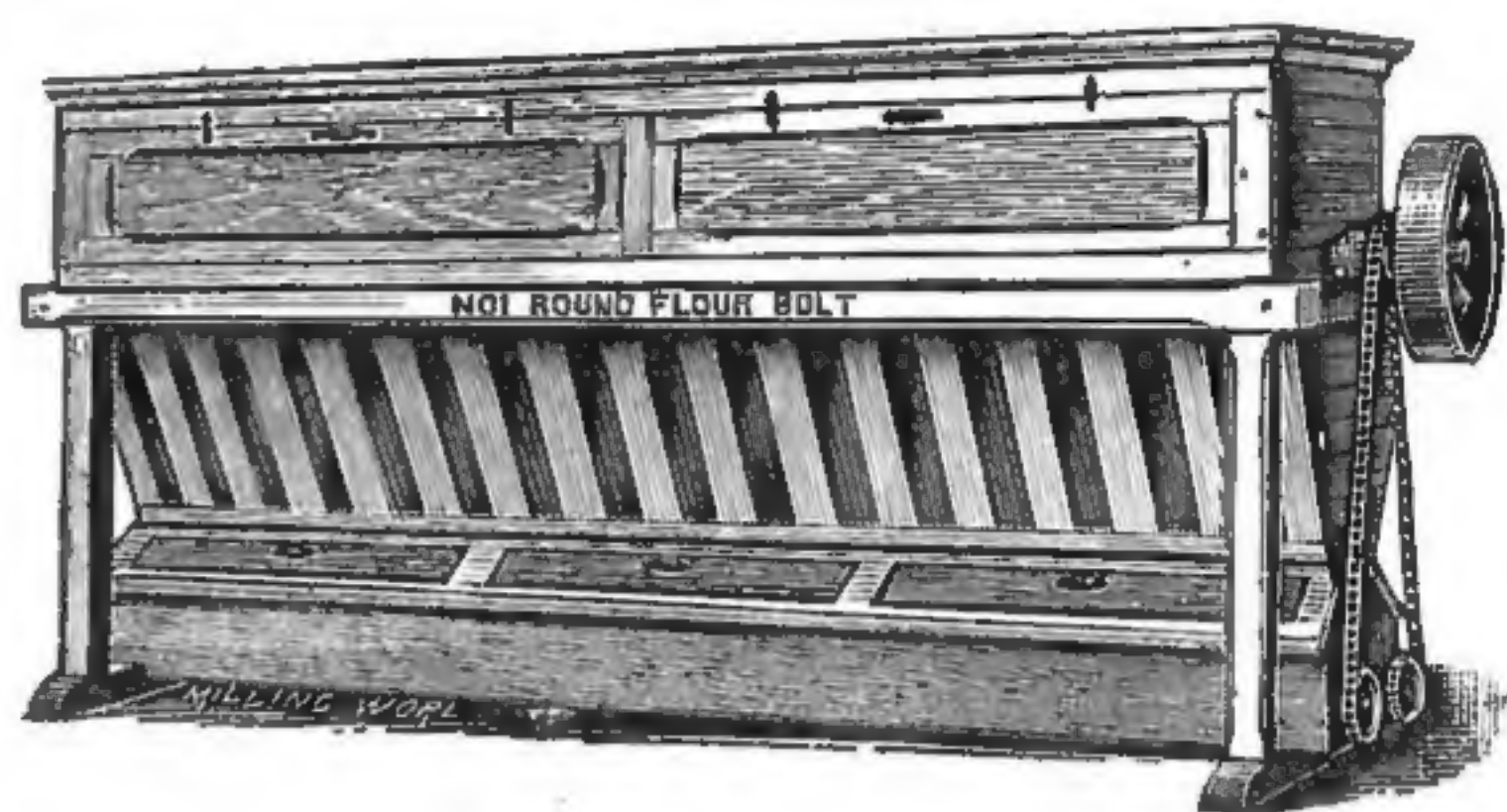
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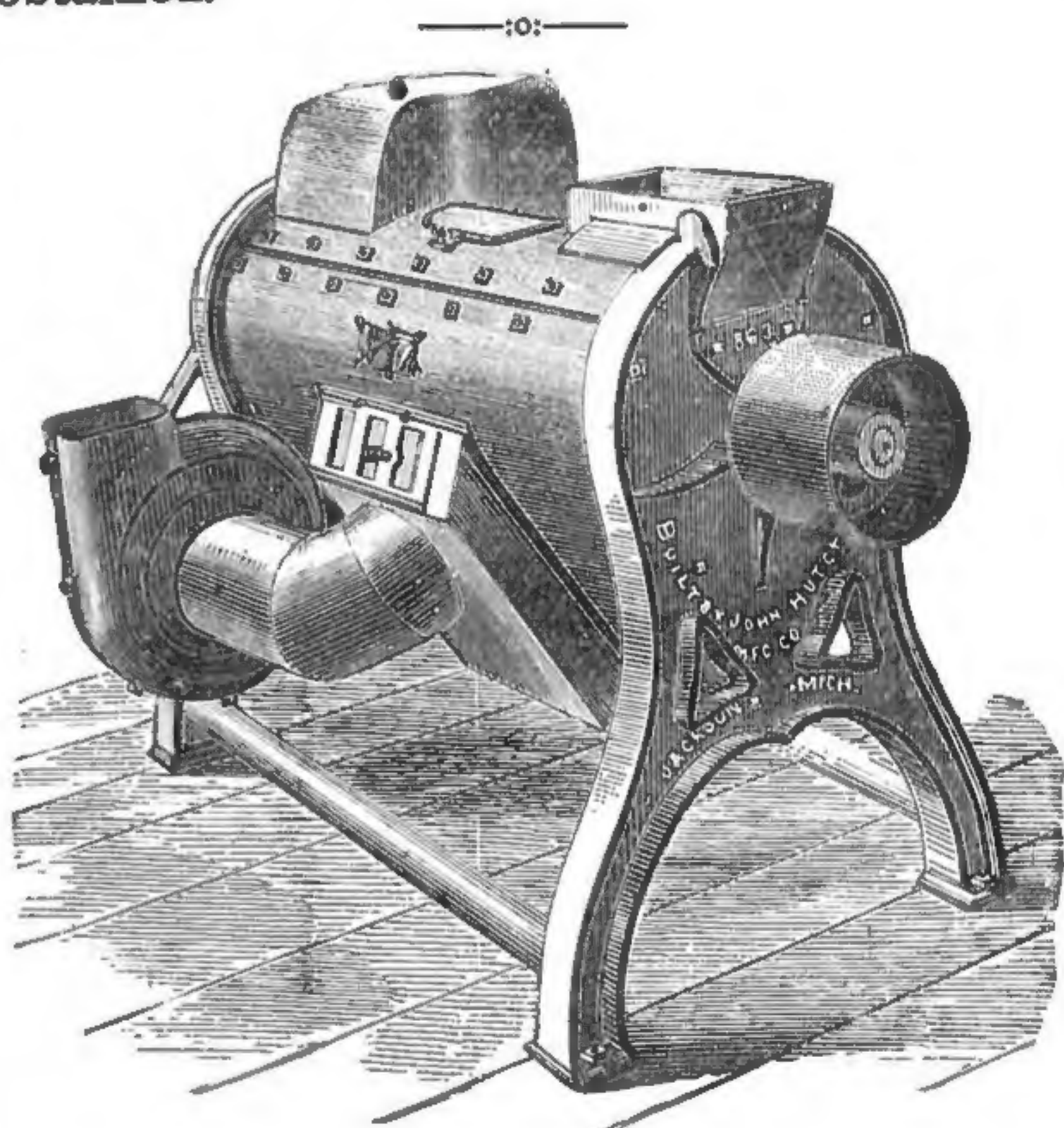


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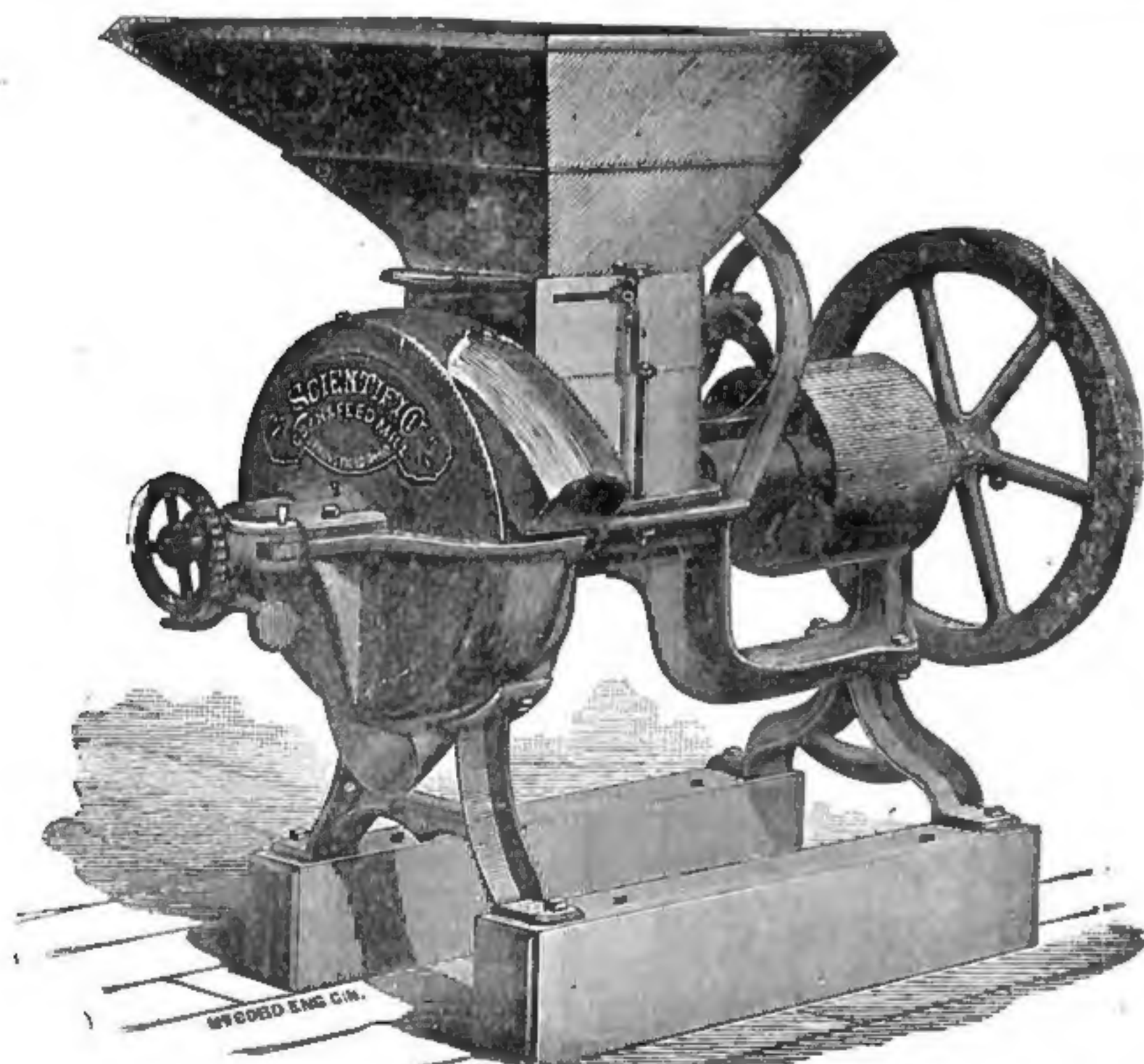
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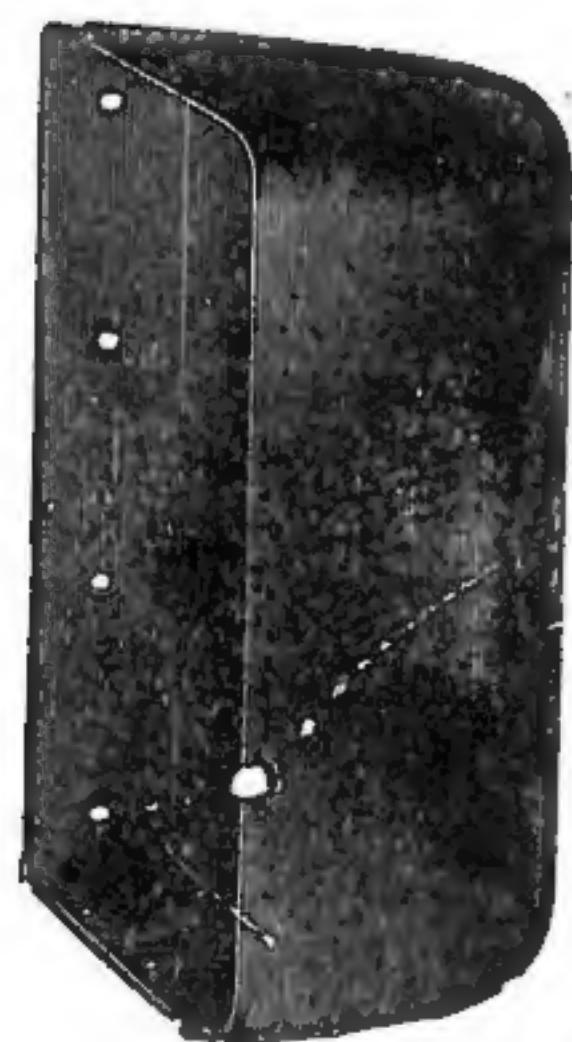
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